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Following page 108, an addendum with additional attachments has been added to this document and posted on our web site on October 13, 2005.

To: Commissioners and Interested Persons

From: Charles Lester, Deputy Director
Rick Hyman, Central Coast Chief Planner
Dan Carl, Coastal Planner

Subject: UCSC Marine Science Campus Coastal Long Range Development Plan (CLRDP)
Proposed CLRDP for UCSC's Terrace Point property located in the City of Santa Cruz to be presented for public hearing and action at the California Coastal Commission's October 2005 meeting to take place at the Marriott San Diego Hotel & Marina, 333 West Harbor Drive, in San Diego.

Summary

CLRDP General Context

The University of California at Santa Cruz (UCSC) owns approximately 100 acres of land located just within the western border of the City of Santa Cruz and entirely within the coastal zone. The site has been known locally as Terrace Point and is currently home to UCSC's Long Marine Lab (LML) and its related facilities, as well as other affiliated marine science labs (including California Department of Fish and Game (CDFG) and National Oceanic and Atmospheric Administration (NOAA) marine labs). The UCSC property includes the 25 acre Younger Lagoon Reserve (YLR), a component of UC's Natural Reserve System, and it is located at the transition from urbanized Santa Cruz City into Santa Cruz County's rural north coast. The entire site is located within the City of Santa Cruz, but is not subject to the City's certified Local Coastal Program (LCP), in part because this area was deferred LCP certification in 1981, and in part because portions of the site have been in University ownership since 1975. As a result, development to date at the Terrace Point site has been authorized by a series of coastal development permits approved by the Commission (over three dozen Commission permit actions since the first LML approval in 1976) that have allowed approximately 140,000 gross square feet of existing buildings/facilities and additional areas of related infrastructure on the 75 acre terrace above YLR (including related NOAA development).

As an alternative to project by project coastal permit review, Coastal Act Section 30605 allows the University to develop a long range development plan (or LRDP) that can be certified by the Commission and that can then guide development at the site. Similar to an LCP certification process, the University would then be the responsible entity for ensuring that future development on the site was consistent with the LRDP, subject to Commission oversight. After several years of preparation, UCSC has now submitted a proposed coastal LRDP (or CLRDP)[1] to the Commission that is designed to govern

[1] This LRDP is called a coastal LRDP (or CLRDP) to distinguish it from the non-coastal LRDP that applies to the main UCSC campus outside of the coastal zone pursuant to an authority other than the Coastal Act.

coastal development at the Terrace Point property (now called the Marine Science Campus by the University). The proposed CLRDP would provide for an increase of about 680,000 square feet of new Campus facilities mostly within three distinct development nodes (occupying about 35 of the 75 acres on the terrace) for an expanded Marine Science Campus. Roughly 417,000 gross square feet of new facilities would be in new one and two story buildings up to 36 feet tall, with the remainder in outdoor research and support areas. Additional areas of parking and roads (an addition of about 20,000 square feet to what exists now), and some drainage facilities, would also be developed outside of the development nodes. The proposed CLRDP also provides for an expanded public access trail system and natural habitat restoration in those wetland and open space areas on the terrace that are not part of the proposed development nodes (roughly 40 acres). Once the CLRDP is certified, direct development review authority for most of the site would be transferred to UCSC.

Previous CCC Issue Identification

In December of 2000, the Commission reviewed UCSC's CLRDP issue identification paper at a public hearing and provided comments to the University for their use in the preparation of a CLRDP for this site.[2] The Commission's comments at that time were focused primarily on ensuring that the CLRDP would: avoid, protect, and enhance wetlands, environmentally sensitive habitat areas (ESHAs), and other related habitats; maximize public access to the site consistent with the resource protection requirements of the Coastal Act; protect the public viewshed, including through appropriate mass, scale, and location of development; not adversely affect the viability of adjacent agricultural operations, and only allow conversion of on-site agricultural lands for high Coastal Act priority uses; manage and treat runoff to protect water quality; avoid the use of shoreline armoring; maintain a stable urban-rural boundary, including through avoiding the extension of public services upcoast to the rural north coast; and provide clear and explicit procedures for implementing the provisions of the CLRDP.

Proposed CLRDP

UCSC spent the years since the 2000 issue identification hearing preparing a draft CLRDP and supporting information for the Commission's consideration. CLRDP preparation intensified in late 2004 when the University began a series of meetings with Commission staff to identify and resolve potential Coastal Act issues with respect to the University's draft CLRDP. Commission staff and University staff have been working closely together since that time to resolve remaining issues, and the University made a series of modifications to its proposed CLRDP – including submitting a revised proposed CLRDP at the end of August 2005 – in response to those ongoing discussions. It is the August 2005 revised proposed CLRDP (hereafter proposed CLRDP or CLRDP) that is before the Commission at this time.

The CLRDP would provide for a development expansion of the Terrace Point site designed to accommodate a full-fledged UCSC Marine Science Campus. Development would take place largely within the three identified development nodes that would be connected by roads and trails, and separated by areas of grassland and wetland. The result would be three areas within which structures would be

[2] The Commission's regulations allow for State Universities to submit issue identification papers to the Commission for review and comment as a means to guide preparation of CLRDPs.

densely sited (totaling about 35 acres) with the remainder of the terrace area (about 40 acres) left mostly free of development (other than roads, trails, some parking areas, and drainage ponds). An expanded system of public pathways would be provided, as would some public access parking. YLR would remain undeveloped and be maintained as a natural reserve. The CLRDP would allow for up to about 417,000 additional square feet of buildings and related structures, including 112 housing units and 10 overnight units, and up to roughly 150,000 square feet of outdoor research area. Roads, parking, pathways, patios, and other such facilities would also be commensurately increased. Overall, and based on the University's current best estimate as to the Campus layout at buildout, the CLRDP would provide for a Campus roughly three times the scale of the existing Campus (including the NOAA facility) overall, and roughly four times the scale of the existing building development (including the NOAA facility) on the Campus overall.

Coastal Act Consistency Issues

The CLRDP is a comprehensive land use and development document, and the University has put significant time and effort into balancing coastal resource constraints, including those identified for them by the Commission early in this process, against the scope and scale of development desired by the University. The result is a plan that allows the University to meet their identified Campus expansion needs, albeit at a reduced scale and intensity from their original concept, while still mostly protecting the resources of the site and its surroundings. In that regard, the plan generally succeeds. That said, there remain a range of consistency issues with the CLRDP as proposed that require modifications in order for it to be found consistent with the Coastal Act.

There is no question that the proposed campus, with its coastal dependent and related uses, is a high Coastal Act priority. The University's objective is to develop a world-class integrated marine research facility where researchers, faculty, students, and the public can interact and participate in a comprehensive marine and coastal science research program. There is no doubt that such a facility could make a significant contribution to on-going efforts to understand, learn, and educate society about the marine and coastal environment. Creating such an institutional context, though, requires a significant building program and commitment of resources.

The primary issue with the CLRDP as proposed is that the scale and scope of development allowed by the plan would adversely impact habitat resources and public views, and diminish the ability of the site and Campus development to continue to function as a critical transition zone between urban areas to the east and significant rural areas to the west. (Given its location on the urban-rural boundary of the City of Santa Cruz, the site of proposed campus has a long history of conflict concerning appropriate types, scale, and intensity of development, including the fact that LCP certification for the area was never accomplished.) Short of not allowing a significant increase in development potential on the site, which would undermine the goal of building out the proposed coastal dependent/related facility, impacts to coastal resources cannot be avoided entirely. They can be reduced, however, to an acceptable level, particularly when considered in the context of the proposed high-priority use, and the opportunity to finally plan for and build out this critical transition site in a way that otherwise maximizes coastal resource protection and public access and recreation.

Overall, because of the proposed Coastal Act priority use that the CLRDP represents, as well as the importance and potential for this transition site to strengthen the boundary between significant rural resources to the west and urbanized areas to the east, staff believes that the best outcome for this site is to allow the University to expand mostly as proposed in the CLRDP. Staff is also recommending, though, that the CLRDP provisions be tightened to limit development to the development zones, to reduce its mass and bulk, to identify a range of appropriate development intensities reflecting locationally sensitive areas (like YLR, wetlands, other habitat areas, immediate shoreline, etc.), as well as other similar provisions (e.g., building separation, screening, native landscaping, etc.). Complementary to this, CLRDP provisions applicable to areas outside of development zones need refinement so that it is assured that these areas function both as viable habitat (wetlands, wildlife corridors, foraging grassland, etc.) and so that they can counterbalance the degree of development in the zones themselves. With such modifications, the perceived sense of scale and intensity of CLRDP development will be reduced, and the buildout of the site will serve its urban-rural transitional character. To the extent feasible given the scope of the building program, the modified CLRDP can also more closely approximate the concept of clustered development zones within a coastal meadow that will allow an expanded Campus to more effectively integrate within the significant and established public viewshed of the site and surrounding area.

There are series of complementary issues that are inextricably linked to this primary intensity issue – including mitigating impacts associated with Campus expansion overall. Chief among these is ensuring that the public benefit mitigations included in the CLRDP (such as habitat enhancements, public access improvements, long-term management of habitat resources and public access facilities, etc) are clearly articulated in a manner that maximizes their utility and potential for success, and that they are timely pursued, completed, and maintained over time. Although the CLRDP includes substantial detail on this point, staff is recommending a series of modifications that are necessary to provide specificity and context to such measures, and without which coastal resource protection would be compromised (including accurately describing ESHA and other habitats, providing more detailed parameters for water quality protection, better identifying access improvement details, more appropriately timing improvements to offset development impacts, providing for annual monitoring and reporting, etc.). Such modifications will help to again reduce the perceived scale of Campus development over time, and will provide for habitat, access and other coastal resource enhancement to partially offset development impacts, and to also maximize the public's enjoyment of coastal resources on and adjacent to the Campus.

On a very specific note, the public has been prevented from accessing Younger Beach on the west side of the Campus since 1981 (as reviewed and allowed by the Commission on a temporary basis in 1981, and again in 2001). Although the CLRDP has not explicitly tracked the Commission's 2001 reevaluation requirements, the CLRDP and its documentation provide adequate information with which to reevaluate this decision as previously required by the Commission. In sum, staff, including the Commission's staff ecologist, do not believe that the sandy beach portion of YLR should be considered ESHA, and that public access to it should be allowed consistent with the Coastal Act. Modifications are suggested to clearly distinguish the sandy beach area in this respect, and to allow low intensity use of it, including disallowing access inland of the beach and into the heart of YLR itself. The intent here is not

to require a substantially different beach access to be developed and advertised per se, but rather, to acknowledge the historic and current use (notwithstanding the University closure) of the beach area, primarily for surfing access, and to accommodate such use. It is expected that use of the beach will remain extremely limited, in part because the existing access path to the beach is uneven, narrow, and includes a "goat trail" descent/ascent where it meets the beach itself. Improvements to this accessway would only be required if demand and public safety warranted.

Finally, inherent to the issues discussion above is the manner in which the CLRDP would be implemented over time. Staff is well aware of the difficulties – small and large – associated with effective delegation of coastal development decision making, including provisions for Commission oversight. The CLRDP raises a series of procedural issues requiring modifications to conform it with the specifications for CLRDPs that are found in the Coastal Act and the Commission's regulations. Given the nature of CLRDPs, procedural efficiency and clarity is particularly important, and the lack thereof may lead directly to unforeseen coastal resource impacts.

In sum, the CLRDP is a thorough, complex, and specific planning document designed to guide development at the Campus site for the foreseeable future. It is critically important that it function as a coherent whole to effectively address Coastal Act requirements within the context of the unique circumstances of the Campus site. Although there will be impacts to coastal resources from the proposed building program, these impacts can be reduced to an acceptable level through various modifications. Staff is recommending that the CLRDP be approved, if modified as suggested to assure coastal resource protection. Staff believes that a CLRDP, if modified as suggested, will be able to effectively function to both protect coastal resources consistent with the Coastal Act, and to provide the University with an expanded marine science campus that meets their goals and objectives. Over time, it is expected that with the CLRDP the Campus will integrate effectively into its surroundings, it will embrace public use and enjoyment of its access facilities and features, it will enhance the natural habitats by which it is surrounded, it will educate and inform the public thus fostering a broader appreciation of marine and coastal resources, and it will be able to provide significant contributions to our understanding of the marine environment, ultimately contributing to improved coastal resource management.

With the identified modifications, staff recommends that the Commission find that the proposed CLRDP is consistent with the Coastal Act. As so modified, staff recommends that the Commission certify the CLRDP.

Staff Report Contents

Use the link at left to go the exhibits which are in a separate document.

[3] Exhibit C consists of almost all of the figures included in the proposed CLRDP, except for entirely textual figures and except for selected figures that are shown in Exhibit E. In other words, the figures shown in Exhibit C together with the figures shown in Exhibit E represent the CLRDP figures. Note that the figures do not reflect the changes to them that are articulated in the University's proposed CLRDP document. In other words, these figures need to be understood as seen in Exhibits C and E and as modified by the changes to them identified by the University in Exhibit E, where these changes are typically either articulated in the text (near where the figures would be located) and at the end of each chapter or appendix. It is the figures as modified by the University that constitute the proposed CLRDP figures.

[4] Exhibit D consists of photos over which are superimposed depictions of Campus facilities at buildout under the CLRDP if it were to develop pursuant to CLRDP Figure 7.2. Note that Figure 7.2 is an illustrative example and thus only represents one way that the Campus could develop pursuant to the proposed CLRDP. As a result, the photosimulations need to be understood as one example of Campus buildout according to the proposed CLRDP building program.

I. Staff Recommendation – Motions & Resolutions

Staff recommends that the Commission, after public hearing, certify the proposed UCSC CLRDP only if modified. The Commission needs to make two motions in order to act on this recommendation.

A. Deny Certification of UCSC CLRDP as Submitted

Staff recommends a **NO** vote on the motion below. Failure of this motion will result in denial of certification of the UCSC CLRDP and the adoption of the following resolution and findings. The motion to certify passes only by an affirmative vote of a majority of the appointed Commissioners.

Motion (1 of 2). I move that the Commission **certify** the UCSC Coastal Long Range Development Plan as submitted.

Resolution to Deny Certification. The Commission hereby **denies** certification of the UCSC Coastal Long Range Development Plan and adopts the findings stated below on the grounds that the Plan is inconsistent with Chapter 3 of the Coastal Act. Certification of the Plan would not comply with the California Environmental Quality Act because there are feasible mitigation measures or alternatives that would substantially lessen the significant adverse effects that the approval of the Plan would have on the environment.

2. Certify UCSC CLRDP if Modified

Staff recommends a **YES** vote on the motion below. Passage of this motion will result in certification of the UCSC CLRDP as modified. The motion to certify passes only by an affirmative vote of a majority of the appointed Commissioners.

Motion (2 of 2). I move that the Commission certify the UCSC Coastal Long Range Development Plan if modified as suggested in the staff report.

Resolution to Certify with Suggested Modifications. The Commission hereby **certifies** the UCSC Coastal Long Range Development Plan as modified and adopts the findings stated below on the grounds that the Plan as modified is consistent with Chapter 3 of the Coastal Act. Certification of the Plan if modified as suggested complies with the California Environmental Quality Act because either 1) feasible mitigation measures and/or alternatives have been incorporated to substantially lessen any significant adverse effects of the plan on the environment, or (2) there are no further feasible mitigation measures or alternatives that would substantially lessen any significant adverse impacts of the Plan on the environment.

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[5] Exhibit E consists of the text of the proposed CLRDP, along with a subset of figures (mostly text-based figures). Figures not shown in Exhibit E are shown in Exhibit C (see description above). The cross-through and underline text identifies Commission suggested modifications. Exhibit E (without the Commission's suggested modifications) and Exhibit C together constitute the submitted proposed CLRDP.

II. Suggested Modifications

The Commission hereby suggests the following modifications to the proposed UCSC CLRDP, which are necessary to make the requisite Coastal Act consistency findings. If UCSC accepts and agrees to each of the suggested modifications within six months of Commission action (i.e., by April 14, 2006), by formal action of the UC Regents, the CLRDP will become effective upon Commission concurrence with the Executive Director's finding that this acceptance has been properly accomplished. Where applicable, text in ~~cross-out~~ format denotes text to be deleted and text in underline format denotes text to be added.

1. **Document Modifications.** The CLRDP document shall be modified as directed and shown in Exhibit E.

2. **Final Document Corrections.** In addition to incorporating the required textual and figure modifications identified in suggested modification 1 above, the final CLRDP shall be revised to: include page numbers on all pages; make commensurate revisions to the table of contents; correct typographical and grammatical errors (i.e., including but not limited to incorrect spelling, numbering, punctuation, etc); correct internal reference errors (i.e., to sections, figures, names, etc.); include a consistent and readable format; and use consistent terminology as modified (e.g., refer to all proposed developments as "proposed development projects," to all CLRDP approvals as "authorizations," etc.).

3. **CLRDP Consistency.** All references to the CLRDP and/or to discrete sections of the CLRDP (such as to the Resource Management Plan) and/or references to some form of consistency to them that include qualifying text (including, but not limited to, such phrases as "in accordance with the standards and measures contained in this CLRDP," "consistency with CLRDP standards," "management measures in the Resource Management Plan," etc.) shall be changed to require consistency with the CLRDP (or the cited CLRDP section) without any qualifying text (e.g., "in accordance with the CLRDP," "consistency with the CLRDP," etc.).

4. **Campus Boundary and CLRDP Jurisdiction Figure.** The University shall prepare a new figure titled "Campus Boundary and CLRDP Jurisdiction" that shall clearly and accurately depict (consistent with the format of other CLRDP figures) the following: (a) the Campus boundary; (b) to the extent the Campus boundary differs from the boundary of the property owned by the University, the boundary of the property area owned by the University; (c) the boundary of all tidelands, submerged lands, and/or public trust lands, whether filled or unfilled, on the Campus; (d) the Coastal Commission's area of retained jurisdiction within the Campus boundary and adjacent to it, including the areas in subsection (c); and (e) the area to which the CLRDP applies as the standard of review for development projects (i.e., CLRDP jurisdiction). Such figure shall accurately reflect all other figure modifications and shall be included in CLRDP Chapter 8 following Section 8.7.

5. **Post Certification Figures.** The University shall provide two (of each figure) large scale printed copies (at least 18" by 24") of Figures 5.2, 5.4, 5.5, 5.5a (as renumbered), 5.6, 6.7 (as renumbered), 7.2, 9.1, A-6 (i.e., Figure 6 of Appendix A as renumbered), B-1 (i.e., Figure 1 of Appendix B as renumbered), and the new figures for (a) heights (see last pages of Exhibit E), and (b) Campus

boundary and CLRDP jurisdiction (see suggested modification 4 above), all as modified by changes identified by the University and as modified in Exhibit E.

III. Findings and Declarations

The Commission finds and declares as follows:

A.What is a Coastal Long Range Development Plan?

Coastal Act Section 30605 allows for the University of California to propose, and the Commission to certify, a Long Range Development Plan as a means to implement the Coastal Act on University lands in the coastal zone. Section 30605 states:

> ***Section 30605.*** *To promote greater efficiency for the planning of any public works or state university or college or private university development projects and as an alternative to project-by-project review, plans for public works or state university or college or private university long-range land use development plans may be submitted to the commission for review in the same manner prescribed for the review of local coastal programs as set forth in Chapter 6 (commencing with Section 30500). If any plan for public works or state university or college development project is submitted prior to certification of the local coastal programs for the jurisdictions affected by the proposed public works, the commission shall certify whether the proposed plan is consistent with Chapter 3 (commencing with Section 30200). The commission shall, by regulation, provide for the submission and distribution to the public, prior to public hearings on the plan, detailed environmental information sufficient to enable the commission to determine the consistency of the plans with the policies of this division. If any such plan for public works is submitted after the certification of local coastal programs, any such plan shall be approved by the commission only if it finds, after full consultation with the affected local governments, that the proposed plan for public works is in conformity with certified local coastal programs in jurisdictions affected by the proposed public works. Each state university or college or private university shall coordinate and consult with local government in the preparation of long-range development plans so as to be consistent, to the fullest extent feasible, with the appropriate local coastal program. Where a plan for a public works or state university or college or private university development project has been certified by the commission, any subsequent review by the commission of a specific project contained in the certified plan shall be limited to imposing conditions consistent with Sections 30607 and 30607.1. A certified long-range development plan may be amended by the state university or college or private university, but no amendment shall take effect until it has been certified by the commission. Any proposed amendment shall be submitted to, and processed by, the commission in the same manner as prescribed for amendment of a local coastal program.*

Section 13502 of the California Code of Regulations (CCR) defines an LRDP:

> *"Long Range Development Plan" hereinafter referred to as "LRDP" means the relevant portions of the land use plans and policies for the physical development of campuses and educational facilities of the University of California or the California State University and Colleges, which are sufficiently detailed to indicate the kinds, location and intensity of land uses, the applicable resource protection and development policies and, where necessary, a listing of other implementing actions.*

CCR Section 13511(b) provides additional detail in this respect:

> *With regard to LRDPs, the level and pattern of development selected by the governing authority shall be reflected in a long range land use development plan. The LRDP shall include measures necessary to achieve conformity with the policies of Chapter 3 of the California Coastal Act of 1976. Any plan submitted pursuant to this subchapter shall contain sufficient information regarding the kind, size, intensity and location of development activity intended to be undertaken pursuant to the plan to determine conformity with the policies of Chapter 3 of the Coastal Act. Such information shall include, but is not limited to the following: (1) the specific type of development activity or activities proposed to be undertaken; (2) the maximum and minimum intensity of such activity or activities (e.g., number of residents, capacity and service area of public works facility, etc.); (3) the proposed and alternative locations considered by any development activities to be undertaken pursuant to the LRDP; (4) a capital improvement program or other scheduling or implementing devices that govern the implementation of the LRDP; and (5) other information deemed necessary by the executive director of the Commission.*

The University of California at Santa Cruz has submitted an LRDP to the Commission which it has termed a "Coastal" LRDP (CLRDP) to distinguish it from its LRDP for the main campus mostly inland of the coastal zone. As defined in the Commission's regulations, this "CLRDP" is similar to a Local Coastal Program (LCP).[6] Like an LCP, the CLRDP must contain a land use plan, must delineate the kinds, locations, and intensities of development allowed pursuant to it, and must include implementing measures similar to those found in LCP zoning ordinances. That said, there are two important differences between an LCP and a CLRDP: the level of specificity required, and the manner in which development is ultimately authorized and allowed to proceed.

Concerning specificity, CLRDP and LCP documents differ in their expected level of detail. Generally, a CLRDP is more geographically specific in terms of the application of land use policies. This is largely because University lands tend to cover less area than, for example, a whole city or county. Whereas an LCP might contain general policies that are applicable to an entire city or county, a CLRDP tends to prescribe specific policy language tailored to a much smaller geographic area – in this case a 100 acre site. A CLRDP also must provide specific information regarding potential development projects to be covered by it (such as identifying specifically contemplated projects, including maximum and minimum intensities, alternatives considered, capital improvements programs, timing and schedules, etc.). In this respect a CLRDP is more akin to a specific plan with implementing provisions than a typical LCP

[6] Again, for purposes of UCSC's Marine Science Campus, the term coastal LRDP (or CLRDP) is used hereafter in this report. That said, the CLRDP is in all respects an LRDP as that term is understood in the Act and the Commission's regulations.

document. Thus, CLRDPs should include details similar to those sometimes associated with a coastal development permit review.

The level of specificity expected in a CLRDP partly relates to the second main difference between LCPs and CLRDPs – the manner in which development is authorized. Under a certified LCP, a local government is delegated primary coastal permitting authority to approve and deny coastal permits for proposed development. This delegated permitting authority is similar to that of the Commission prior to LCP certification. In certain cases, those local government decisions can be appealed to the Commission, which can also approve or deny coastal permits for development. With a certified CLRDP, however, the concept of approving and denying coastal permits for proposed development doesn't apply. Rather, University development of specific projects contained in a certified CLRDP can proceed without a coastal permit provided the University sends a notice of impending development ("NOID") to the Commission prior to undertaking development, and either the Commission deems the identified development project consistent with the CLRDP (with or without conditions to make it so) or doesn't timely respond to the NOID.[7] Pursuant to Coastal Act Section 30605 and 30606, the Commission is limited to imposing conditions on such development project proposals if it finds them inconsistent with the certified CLRDP. It is in this respect that the level of specificity in a CLRDP is amplified. Once certified, the CLRDP establishes the universe of development that may be authorized with more limited oversight by the Commission than is typical of LCP implementation. Effective implementation of the CLRDP may well depend, therefore, on how well it identifies and specifically defines future development project scenarios.

These differences mean that it is critical that a certified CLRDP provide detailed specifications applicable to potential development projects, including detailed specifications related to mitigation and associated offsetting improvements (e.g., habitat restoration, public access improvements, etc.) that can be relied upon for ensuring development project consistency.

B.Marine Science Campus Background

1. Marine Science Campus Location[8]

UCSC's Marine Science Campus site, the subject of this CLRDP, is located directly adjacent to the Monterey Bay National Marine Sanctuary just within the western border of the City of Santa Cruz in Santa Cruz County (see Exhibit A). The Campus site has been known locally for years as Terrace Point. The main UCSC campus is located roughly two miles inland of the Marine Science Campus in the

[7] Coastal Act Section 30606 requires that the University provide notice of an impending development at least 30 working days prior to pursuing it. CCR Section 13548 requires that he Commission take action within 30 working days of filing of the NOID. CCR Section 13549 provides that a NOID is only filed following Executive Director review of the NOID and supporting materials to ensure there is sufficient information for making the consistency determination. In sum, if the Commission does not take action within 30 working days of filing of the NOID, the identified development project is deemed consistent and can proceed.

[8] See Exhibit A for location maps and photos of the Campus area. See also Section 2.1 of Chapter 2 of the proposed CLRDP, as edited there, for further description of the site and surrounding areas (see Exhibit E), and see the photos and figures referenced in Chapter 2 (see Exhibit C).

rolling foothills northwest of downtown Santa Cruz. The Terrace Point site (hereafter referred to as "the Marine Science Campus"), is located at the outskirts of the City, seaward of Highway One, at the transitional boundary between the urbanized City area to the east and the rural north coast of the unincorporated County to the west. The Santa Cruz County north coast area is well known to the Commission for its sweeping vistas of both coastal agricultural fields and natural landscape framed by the undulating coastal range. Much of this area is in extensive State Park and other undeveloped public land holdings, and all of it is traversed by a rural stretch of Highway One. Although there are some limited residential enclaves (e.g., Davenport and Bonny Doon) in these mostly pastoral areas, this north coast area is part of the stretch of largely undeveloped coastal lands extending nearly 50 miles to Half Moon Bay upcoast. The Campus site is located at the beginning of this stretch of coast as one heads upcoast out of the City of Santa Cruz and, by extension, out of the urbanized portion of northern Monterey Bay.[9]

The Campus is primarily made up of a relatively flat terrace area (roughly 73 acres) sloping gently from north to south (to the ocean) with the remainder occupied by a large arroyo on the west of the site making up Younger Lagoon Reserve (YLR) (a 25 acre component of UC's Natural Reserve System), at the base of which lies Younger Lagoon, an estuarine lagoon that outlets (at times) to the ocean. The terrace portion of the site includes within it a 2.5 acre federally-owned parcel completely surrounded by UCSC property. Altogether, the Campus (including the federal inholding) is about 100 acres. In the general Campus vicinity, agricultural land extends to the west along the coast beyond YLR and the western Campus boundary, to the north is the Union Pacific Railroad tracks, the Raytek industrial facility, and Highway One, to the south lies the Sanctuary and the Pacific Ocean, and to the east is the densely packed De Anza Mobile Home Park (residential) and past that Natural Bridges State Park.

2. Marine Science Campus Existing Development[10]

The Campus site is currently developed with a number of facilities, some of which are leased by the University to other entities and agencies, and others that operate as primary UCSC facilities. Nearest the ocean are the main LML complex of facilities, including the Seymour Marine Discovery Center, separated from YLR by a 10-12 foot constructed berm. In the center of the site (on the federal property) lies the NOAA Fisheries Lab. West of the NOAA facility there are a series of greenhouses, some abandoned, and some that UCSC leases to other entities, and a UCSC storage yard nearest YLR.[11] Just north of the greenhouses is the CDFG Marine Wildlife Veterinary Care and Research Center, the State's primary wildlife center for oil spill response, and related to it, UCSC's Avian Facility. Access to the

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[9] The City of Santa Cruz is located at the upcoast end of the larger urban portion of the north Monterey Bay that extends downcoast, including unincorporated Live Oak, the City of Capitola, and the more urban south County (i.e., the Aptos-Rio del Mar-Seascape areas). Though defined by city limit boundaries, these more urban areas all blend together as an urban zone.

[10] See Exhibit A for air photos of the site. See also Sections 2.2 – 2.5 of Chapter 2 of the proposed CLRDP, as edited there, for further description of existing Campus development (see Exhibit E), and see figures referenced in those sections (see Exhibit C), including photos and detailed facility descriptions.

[11] The storage yard is not permitted and the greenhouses were authorized by the Commission on a temporary basis only (until 2004). As of the date of this staff report, the University and Commission staff continue to discuss potential resolution scenarios, but this matter has not been resolved. In any case, these areas are located within an area where development would be allowed pursuant to the CLRDP.

Campus is at the intersection of Shaffer Road and Delaware Avenue by means of a narrow west-east access road (known as Delaware Avenue Extension) that curves to the south near the western Campus boundary (and becomes McAllister Way) extending to the shoreline and connecting all Campus facilities. A public trail loop extends along the campus access road, along the bluffs, and along the Campus boundary with the De Anza Mobile Home Park (MHP), and includes a blufftop ocean overlook at the end of McAllister Way. Two additional overlooks requiring docent supervision are located west of LML. The site is served by City of Santa Cruz water and sewer. Because the majority of the Campus site is within an area where the Commission deferred LCP certification prior to the University's acquisition,[12] and because the remainder has been in University ownership since 1975, all development authorized on the site to date has been by virtue of Coastal Commission action – some three dozen such Commission actions to date.[13]

C.Development of the UCSC CLRDP

1. Development Controversy

As witnessed by its origins as part of an area of deferred LCP certification, the Terrace Point Campus site has been the center of ongoing development planning and public controversy for many years. Because the City and Coastal Commission could not reach agreement on appropriate land use for the area, initial certification of the City's coastal land use plan in 1981 left out ("white holed") this area. The 1981 LCP submittal proposed primarily residential development of up to 840 units. This and subsequent Terrace Point development proposals,[14] have raised core Coastal Act issues including questions about the appropriate type, scale, and intensity of development, the loss of open space/agricultural lands, protection of wetland and other natural habitat resources, and the provision of public access, among others. In addition to direct impacts from proposed development, there have also long been concerns that piecemeal development over time may effect the pattern and intensity of development on the Terrace Point property in such a way as to prejudice future coastal development decisions there (whether coastal permit, LRDP, or LCP), and to lead to cumulative coastal resource impacts. These issues relate to the fact that the Terrace Point site is located outside of the urban-rural boundary, was long cultivated for agriculture and subsequently remained mostly undeveloped, while also lacking a certified LCP (see also time series comparison of air photos in Exhibit B).

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[12] Most of the terrace portion of the Campus (i.e., the area east of McAllister Way and east of the western property line above the intersection of McAllister Way with Delaware Avenue Extension), together with the property located between the Campus and Antonelli Pond, was deferred certification when the City of Santa Cruz LCP was originally certified in 1981, and the City chose not to accept the Coastal Commission's suggested modifications designed to limit development of this area. At that time, the University did not own any of the land within the area of deferred certification. Thus, the current Campus area, including that portion that was owned by the University in 1975 and that that was part of the area of deferred certification in 1981, has always only been subject to Coastal Commission direct permit authority.

[13] See air photos from 1972 to 2004 showing incremental development over time (from agricultural production to the current development pattern) of the land that now makes up the current Campus boundaries (Exhibit B).

[14] For example, just prior to University acquisition, Wells Fargo Bank pursued significant development on that portion of the current Campus that was part of the area of deferred certification, including plans that would have accommodated marine research development similar in scope to that contemplated by the University, and including in addition to that 169 residential units.

2. Preliminary Development of CLRDP

Most of the Campus site had been in private ownership until UCSC acquired it from Wells Fargo in the late 1990s, adding considerable land to its adjacent marine lab holding acquired in 1975. Soon thereafter, UCSC embarked on a preliminary CLRDP planning process. This process included a series of meetings and public workshops with interested parties, including Commission staff and the City of Santa Cruz. These preliminary efforts culminated in December 2000 when UCSC submitted their CLRDP issue identification paper for Commission review at a public hearing. The Commission's comments at that time were focused primarily on ensuring that the CLRDP would:

- Avoid, protect, and enhance wetlands, environmentally sensitive habitat areas (ESHAs), and other related habitats;
- Maximize public access to the site consistent with the resource protection requirements of the Coastal Act;
- Protect the public viewshed, including through appropriate mass, scale, and location of development;
- Not adversely affect the viability of adjacent agricultural operations, and only allow conversion of on-site agricultural lands for high Coastal Act priority uses;
- Manage and treat runoff to protect water quality;
- Avoid the use of shoreline armoring;
- Maintain a stable urban-rural boundary, including through avoiding the extension of public services upcoast to the rural north coast; and
- Provide clear and explicit procedures for implementing the provisions of the CLRDP.

Following issue identification, the University prepared a draft CLRDP along with CEQA and other supporting documentation.[15] Commission staff provided comments during this time, including identifying many of the issues discussed in this report. In late 2004 and early 2005, and prior to the University's initial submittal, Commission staff met with UCSC staff on multiple occasions in an effort to further identify potential Coastal Act consistency issues and their potential resolution.

3. Submittal of CLRDP for Commission Review

In March 2005, the University provided their first proposed CLRDP for Coastal Commission review. In response to continuing discussions with Commission staff, UCSC amended that original proposal in April 2005, and then ultimately finalized their proposal in August 2005. Following a request for supporting information, the University submitted additional documentation on September 23, 2005. The

[15] See also CEQA findings at the end of this report.

CLRDP package was deemed submitted on September 29, 2005 (i.e., the date this report was drafted).[16] That said, there remain some informational areas where there continues to be a lack of clarity, primarily relating to Campus boundaries, existing facilities, and certain external reviews (such as that of USFWS). Although this information would be helpful, the Commission has decided to move forward with Coastal Act consistency review inasmuch as there is adequate information with which to analyze and review the CLRDP for Coastal Act consistency overall, and, where information gaps require it, modifications can be included to address those gaps (see suggested modifications). In any case, it is the August 2005 revised proposed CLRDP that is before the Commission at this time.

D. UCSC's Proposed CLRDP

1. CLRDP Overview

The proposed CLRDP is made up of a preface, nine chapters and three appendices. The first four chapters describe the context and general framework for Campus planning and development, including the planning and development that went into the CLRDP itself. Chapter 5 includes the CLRDP's land use development plan, including its detailed Campus building program, and the bulk of policies applicable to development project review. Chapter 6 provides further guidance relative to development project siting and design. Chapter 7 includes preliminary design studies of several potential CLRDP development projects as well as an example of what the Campus site plan might look like at build out.[17] Chapter 8 is the CLRDP's procedural chapter and it describes the process for University and Coastal Commission review of proposed CLRDP development projects. Chapter 9 provides details on capital improvements to be undertaken both in tandem with development projects pursuant to the Campus building program and separate from it, including improvement schedules reflecting the University's commitment to implement the improvements specified there. Appendices A and B provide significant implementation detail, including identifying specific requirements and schedules, relative to Campus natural resource management and Campus drainage and water quality provisions, respectively. Appendix C is an existing indemnification and hold harmless agreement between the University and adjacent owners of the agricultural property (provided as the template for future agreements required by the CLRDP).

The proposed CLRDP is attached as exhibits C and E.[18]

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[16] The term "submitted" is the term that applies to CLRDPs and is akin to filing an application (per CCR Section 13520); it identifies the date when all the necessary supporting information has been provided to allow a CLRDP to be reviewed for Coastal Act consistency.

[17] This build out site plan scenario in Chapter 7 represents the University's best guess as to how development may be located according to the CLRDP. That said, it is intended only as an example, and not a governing site plan per se. Campus development may or may not be sited as shown in Figure 7.2 per the proposed CLRDP.

[18] Exhibit E includes the text of the proposed CLRDP, as well as the University's notes indicating other changes to the underlying document, along with a series of cross-through and underline edits that reflect suggested Commission modifications. Exhibit C includes the proposed CLRDP figures for the base document that have been excerpted to a single exhibit for reference purposes because the document was in state of transition (and not completely reformatted) at the time of the Commission hearing on this matter. (Following Commission review, the document would be integrated again with the modified figures placed back within the modified document at

2. Marine Science Campus Objectives[19]

UCSC's primary objective with the proposed CLRDP is to expand the existing LML core and the other UCSC facilities inland of it on this site into a world-class Marine Science Campus research and education facility (including seamless integration of the NOAA facility within the Campus). The concept is to provide state of the art facilities in a setting that fosters and facilitates interaction and collaboration among researchers, educators, and students. The CLRDP is meant to provide for the physical plant necessary to support and enable such a marine research community. Ultimately, and implicit in the objectives of the CLRDP, the marine research undertaken at the Campus is meant to enhance society's understanding of marine resources, and to promote better protection and management of them.

3. CLRDP Coastal Resource Protection Framework

The CLRDP is premised on avoiding adverse resource impacts to the degree feasible given the building program envisioned. Toward this end, the CLRDP includes maps that depict ESHA, wetland, and other resource areas on the Campus, and that depict buffers from these resources. In some cases, these resource areas and buffers are a function of other resource and/or site constraints being avoided (such as geologic hazards, identified public view corridors, etc.).[20] These areas are then designated by the CLRDP as "Resource Protection," "Wildlife Corridor," "Resource Protection Buffer" (where the buffer designation is applied to areas designated either Wildlife Corridor and Resource Protection), and "Open Space" (see the proposed CLRDP Figure 5.2, the CLRDP's primary land use designation figure, in Exhibit C). These CLRDP mapped depictions are supported by information regarding the extent of Campus ESHA, wetland, and other resources. All told, these resource and buffer areas occupy about 65 acres of the Campus (including the 25 acres within YLR). For the most part, facility development in these areas is prohibited by the provisions of the identified land use designations, and complementary CLRDP policies and requirements. Exceptions to this generalized development prohibition are provided for certain cases, such as some roads and parking areas, certain public access trails and related amenities, seawater system components, and drainage detention ponds in certain circumstances. Otherwise, and for the most part, allowed uses and development in these areas are required to be resource-dependent in various ways (see, for example, proposed CLRDP Land Use provisions in Section 5.2; Exhibit E).

In addition to the direct avoidance measures described above, the CLRDP also includes a number of siting and design criteria meant to avoid and minimize coastal resource impacts. For example, CLRDP

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the appropriate locations.) Note that the figures do not reflect the changes to them that are articulated in the University's proposed CLRDP document. In other words, these figures need to be understood as seen in Exhibits C and E and as modified by the changes to them identified by the University in Exhibit E, where these changes are typically either articulated in the text (near where the figures would be located) and at the end of each chapter or appendix. The University's proposed CLRDP is the text, figures, and changes noted without the cross-through and underline suggested modifications.

[19] See also Chapter 4 of the proposed CLRDP, as edited there, for further description of the University's Marine Science Campus objectives (see Exhibit E).

[20] See also proposed CLRDP Chapter 3 that describes the University's site constraint analysis exercise (see Exhibit E).

requirements are designed to ensure that Campus development projects: do not adversely impact habitat resource areas (e.g., through screening, noise attenuation, and lighting requirements, etc.); maintain significant public view corridors; are set back sufficiently from coastal bluffs to avoid the need for armoring; are set back sufficiently from adjacent agricultural operations (by 500 feet for residential development, and 200-300 feet otherwise); are consistent with the site and surrounding area viewshed and aesthetic; include water quality best management practices (BMPs) to be applied in a treatment train, including predominantly natural systems, to adequately filter and treat all runoff and other site drainage; etc. (see, for example, proposed CLRDP Chapters 5 and 6 in Exhibit E).

The CLRDP also commits the University to a series of coastal resource improvements intended at least partially to offset some of the impacts from Campus facility development over time. These include such measures as restoration/enhancement of terrace wetland, wildlife, and grassland areas; public access trail and overlook improvements; road and parking improvements; and drainage/water quality improvements (see, for example, proposed CLRDP Chapter 9 and Appendices A and B in Exhibit E).

4. CLRDP Development Framework

The CLRDP development framework is primarily premised on avoidance of the resource areas identified (as described above) and shaped by other identified constraints (like coastal erosion, etc.). The end result is that the CLRDP provides for three distinct areas of the terrace within which development is to be clustered to avoid resources and to respond to other constraints. The three development zones are called the Upper Terrace, Middle Terrace, and Lower Terrace development zones. These areas constitute the portion of the Campus that is not designated in one of the resource categories described above.

The Upper Terrace development zone is just over 3 acres in size and is located in the northeastern part of the Campus adjacent to Shaffer Road and near the Union Pacific Railroad tracks (see Figure 5.2 in Exhibit C); this development zone is currently undeveloped. The Middle Terrace development zone extends from near Delaware Avenue Extension through to and including the southern edge of the NOAA inholding, and from near YLR towards De Anza MHP. This area is about 24 acres in size (including NOAA's 2.5 acre parcel). This area is currently developed with the CDFG facility, NOAA's Fisheries Lab, the Avian facility, the temporary greenhouses, and UCSC's storage yard. The Lower Terrace development zone is about 8 acres in size and is the site of the main LML complex of facilities nearest the shoreline and the location of the most developed portion of the Campus currently. All told, these three development zones occupy about 35 acres of the Campus.

The CLRDP land use designation for the three development zones is "Research and Education Mixed Use" (again, see CLRDP Figure 5.2 in Exhibit C). This is the only facility development land use designation in the CLRDP, and it allows for all of the CLRDP Building Program elements within it (such as research labs, educational facilities, outdoor research areas, meeting rooms, auditoriums, food

service, support housing, equipment storage and maintenance, etc.).[21] The CLRDP identifies the maximum scale for each potential type of facility to be developed in the building program (see CLRDP Section 5.2), and allows for structural heights up to 36 feet (see CLRDP Section 5.4). The maximum size of individual new buildings would be 25,000 gross square feet (gsf) in the Lower Terrace development zone, 37,500 gsf in the Upper Terrace zone, and 40,000 gsf in the Middle Terrace zone. Campus housing, other than two caretaker's units, would be limited to the Middle and Upper Terrace zones east of McAllister Way; all longer-term housing (such as apartments) would be located further from the shoreline than shorter term housing (such as overnight units). The CLRDP requires development to include articulation and avoid boxiness, and to be similar in scale and design to rural farm-type buildings and existing site development (see, for example, the design guidelines in proposed CLRDP Chapter 6).

The bulk of new Campus development allowed by the CLRDP is located within the Middle Terrace development zone (see, for example CLRDP Figures 5.2 and 7.2). This zone is the largest of the three, and is the area within which the majority of Campus development could be sited. Development allowed within the Upper Terrace zone would be primarily warehouse and equipment maintenance, while development allowed within the Lower Terrace zone would be limited to additional LML facilities (50,000 gsf of buildings, 10,000 square feet of outdoor research space, 2 caretakers quarters) and seawater system expansion (limited to 12,000 gsf total).

Campus drainage systems would be guided by a drainage concept plan (see CLRDP Appendix B) premised primarily on using natural water quality BMPs applied in series. Source control BMPs limiting the generation of potential pollutants would be augmented by treatment BMPs to ensure that the quality of runoff and other drainage meets established water quality standards (including standards that meet those identified in "California's Management Measures for Polluted Runoff," Section 6217 (g) of the Coastal Zone Amendment and Reauthorization Act ("the g-guidance"), and the RWQCB Central Coast Region Basin Plan). Natural infiltration would be promoted, and drainage filtered and treated by a series of natural swales, filter strips, and ultimately constructed water quality wet ponds. For areas subject to specialized pollutant generation (e.g., parking lots, maintenance areas, laydown areas, food service washdown, etc.), specific requirements would apply in addition to the natural BMPs (e.g., containment systems and shelters, plumbed outlets to sanitary sewer, engineered stormwater treatment units, etc.). In addition to infiltration throughout the drainage trains and site design requirements articulating promotion of natural drainage, filtered and treated runoff would be directed to Campus wetland resources to protect/enhance their hydrologic function. As proposed, the wet ponds would be allowed in the "non-development" area, including the area designated open space and including some resource protection buffer areas (see CLRDP Appendix B and Section 5.7).

In summary, Campus development would be mostly located within the three development zones, where the zones are connected by Campus roads. The expected result at build out would be an array of large buildings and related development located in the center of the site, an expansion of the main LML

[21] See CLRDP Section 5.2.1 in Exhibit E for a detailed description of the CLRDP Building Program, and Section 5.2.2 for a detailed description of the land use designations.

complex nearest the ocean (roughly double LML's current gsf), and a completely new area of large buildings and outdoor laydown space near the railroad tracks. The table below generally identifies existing Campus gsf, the increase that would be allowed under the CLRDP, and expected total Campus gsf at buildout for the three development zones:[22]

	Existing Development at Site	Increase allowed by CLRDP[23]	Potential Development at Buildout
Buildings and related structures	140,000 gsf	417,000 gsf	557,000 gsf
Roads and parking areas	147,000 gsf	152,000 gsf	299,000 gsf
Other areas (e.g., outdoor research, laydown, etc.)	37,000 gsf	108,000 gsf	145,000 gsf
Total	324,000 gsf	677,000 gsf	1,001,000 gsf

Overall, Campus development at maximum buildout would be roughly three times the scope of Campus development currently (including the NOAA facility), and nearly four times the amount of existing permitted gsf in buildings and related structures at the site (including the NOAA facility). Given that there would be additional development outside of the three development zones (roads, parking, wet ponds, etc.), the potential full extent of Campus buildout would be somewhat higher overall than these figures. UCSC has prepared photo simulations representative of the scale and scope of the Campus at buildout that help articulate this concept (see Exhibit D).[24]

5. CLRDP Procedures

Overall, the CLRDP's proposed procedural section provides for Campus development pursuant to the aforementioned Notice of Impending Development (or NOID) process (where the University submits a NOID for a proposed development project identified in the CLRDP to the Commission for review, and the Commission has certain time limits within which to find a development project consistent with the CLRDP, or make changes to it to make it consistent). More specifically though, the CLRDP provides substantial detail on the development project review process, including the preliminary steps leading up to the NOID and procedures for specific scenarios (emergencies, amendments, etc.). These procedures are generally summarized below; see CLRDP Chapter 8 for the full procedural chapter (Exhibit E).

The general development review process proposed in the CLRDP would be that the Director of UCSC

[22] This table is based on University estimates and based on the University's best guess of how Campus development is likely to play out vis-à-vis their identified illustrative campus buildout site plan (CLRDP Figure 7.2). Two things are noted here. First, existing development does not include development that is existing but not permitted (e.g., greenhouses and storage yard). And second, Figure 7.2 only represents one way that the Campus could develop, but it is not the only way that the Campus could develop. Because Figure 7.2 is only one buildout example, there may be a different array of buildings and related development at buildout under the CLRDP than shown there.

[23] "Increase allowed" is based on the amount of new development gsf allowed minus the amount of existing development allowed to be removed to accommodate it. In other words, these figures somewhat underestimate the total amount of new development that would be allowed, but are consistent otherwise with what would be expected at buildout (where replaced gsf is not specifically counted).

[24] Again, these are based on proposed CLRDP Figure 7.2 and must be understood as an example of one potential buildout scenario, and not necessarily how the site would develop over time.

Campus Planning would prepare a detailed project report describing a proposed development project and evaluating its consistency with the CLRDP when such a project is proposed. When this report was available, it would be distributed to the UC Regents and the Commission. All proposed development projects must then be authorized by the Regents or their designated representatives. At least thirty days prior to a NOID being sent, a notice of intent to submit a NOID would be provided to the Commission. At least thirty days prior to commencing construction, a NOID would be sent to the Commission and other interested parties, and posted at the Campus and the development site. The NOID submitted to the Commission would be accompanied by supporting information necessary to make the required CLRDP consistency finding. The Commission would then have the opportunity to review the proposed development project for CLRDP consistency at a public hearing. At that time, the Commission could either find the proposed development project consistent or inconsistent with the CLRDP. In the case of the latter, the Commission could then either require conditions to make it consistent, or could just report back to the University that it was inconsistent. In the case of the latter, the project could not move forward. See CLRDP Section 8.4.

The CLRDP also includes a series of development project categories that would be excluded from the typical NOID development review process, including certain types of repairs, maintenance, and improvements on the Campus (see proposed CLRDP Section 8.3); standards for amendments to previously approved (both pre- and post-CLRDP certification) Campus development (CLRDP Section 8.5); identification of expiration and effective dates for CLRDP authorizations (CLRDP Section 8.6); details regarding the Commission's retained coastal permitting jurisdiction (CLRDP Section 8.7); specifications for University monitoring of CLRDP development and overall implementation over time (CLRDP Section 8.8); a description of enforcement parameters (CLRDP Section 8.9); and procedures for emergency CLRDP authorizations (CLRDP Section 8.10).

E. Coastal Act Consistency Determination

The Coastal Act consistency determination that follows involves significant overlap among issue areas. As an organizational tool, the analysis is structured around larger thematic Coastal Act policy concerns within which specific issue areas are grouped. This does not eliminate the overlap between them, but is intended to limit duplication of analysis to the degree feasible.

The analysis is comprised of seven sections. The first section describes the land use context for the CLRDP, including a discussion of priority uses, agricultural protection, provision of public services, and the urban/rural boundary. The intent is to provide the broader land use framework analysis within which other issues must be understood. The second section details habitat-related issues, including those related to ESHA, wetlands, and water quality. The third details public access and recreation issues. Of note, the second and third section overlap significantly with respect to public access to the sandy beach area of YLR. The fourth section describes public viewshed issues, including analysis of the scale and scope of development proposed. Such issues overlap significantly with the habitat and land use sections as well. The fifth section describes the coastal hazards context for the site, and the sixth those issues related to cultural resources. Finally, section seven details the procedural aspects of the CLRDP.

The standard of review for measuring CLRDP consistency is the Coastal Act. Coastal Act Section 30605 also indicates that such plans need to be consistent to the fullest extent feasible with certified LCPs.[25]

1. Land Use

A. Applicable Policies

Priority Use Policies

Coastal-dependent and coastal-related development are among the highest priority Coastal Act uses. Section 30001.5 provides context for the Coastal Act's Chapter 3 policies in this sense, stating in part:

> ***30001.5:*** *The Legislature further finds and declares that the basic goals of the state for the coastal zone are to: …(d) Assure priority for coastal-dependent and coastal-related development over other development on the coast. (e) Encourage state and local initiatives and cooperation in preparing procedures to implement coordinated planning and development for mutually beneficial uses, including educational uses, in the coastal zone.*

Coastal Act Sections 30222 and 30222.5 state:

> ***Section 30222.*** *The use of private lands suitable for visitor-serving commercial recreational facilities designed to enhance public opportunities for coastal recreation shall have priority over private residential, general industrial, or general commercial development, but not over agriculture or coastal-dependent industry.*
>
> ***Section 30222.5.*** *Ocean front land that is suitable for coastal dependent aquaculture shall be protected for that use, and proposals for aquaculture facilities located on those sites shall be given priority, except over other coastal dependent developments or uses.*

Coastal Act Section 30255 also provides:

> ***Section 30255.*** *Coastal-dependent developments shall have priority over other developments on or near the shoreline. Except as provided elsewhere in this division, coastal-dependent developments shall not be sited in a wetland. When appropriate, coastal-related developments should be accommodated within reasonable proximity to the coastal-dependent uses they support.*

The Coastal Act defines coastal-dependent and coastal-related as follows:

> ***Section 30101.*** *"Coastal-dependent development or use" means any development or use which requires a site on, or adjacent to, the sea to be able to function at all.*
>
> ***Section 30101.3.*** *"Coastal-related development" means any use that is dependent on a coastal-*

[25] In this case certified LCPs applicable to areas surrounding the site, the City of Santa Cruz and Santa Cruz County.

dependent development or use.

Agricultural Protection Policies

The question of the conversion of historic agricultural lands to other uses, and the compatibility of these other uses with adjacent agricultural operations, is also applicable to the land use question in this case. The Coastal Act requires the preservation of both prime and non-prime agricultural lands. In particular, the Act sets a high standard for the conversion of any agricultural lands to non-agricultural uses. Significantly, Coastal Act Section 30241 requires the maintenance of the maximum amount of prime agricultural land to assure the protection of agricultural economies:

> ***Section 30241.*** *The maximum amount of prime agricultural land shall be maintained in agricultural production to assure the protection of the area's agricultural economy, and conflicts shall be minimized between agricultural and urban land uses through all of the following:*
>
> *(a) By establishing stable boundaries separating urban and rural areas, including, where necessary, clearly defined buffer areas to minimize conflicts between agricultural and urban land uses.*
>
> *(b) By limiting conversions of agricultural lands around the periphery of urban areas to the lands where the viability of existing agricultural use is already severely limited by conflicts with urban uses or where the conversion of the lands would complete a logical and viable neighborhood and contribute to the establishment of a stable limit to urban development.*
>
> *(c) By permitting the conversion of agricultural land surrounded by urban uses where the conversion of the land would be consistent with Section 30250.*
>
> *(d) By developing available lands not suited for agriculture prior to the conversion of agricultural lands.*
>
> *(e) By assuring that public service and facility expansions and nonagricultural development do not impair agricultural viability, either through increased assessment costs or degraded air and water quality.*
>
> *(f) By assuring that all divisions of prime agricultural lands, except those conversions approved pursuant to subdivision (b), and all development adjacent to prime agricultural lands shall not diminish the productivity of such prime agricultural lands.*

Coastal Act Section 30241.5 identifies specific findings that must be made in order to address the agricultural "viability" of prime lands around the periphery of urban areas subject to conversion requests. These findings include an assessment of gross revenues from agricultural products grown in the area and an analysis of operational expenses associated with such production. Subsection (b) specifically requires that such economic feasibility studies be submitted with any LCP or LCP amendment request (and, by extension, proposed CLRDPs). Section 30241.5 states:

> ***Section 30241.5.*** *(a) If the viability of existing agricultural uses is an issue pursuant to subdivision (b) of Section 30241 as to any local coastal program or amendment to any certified*

local coastal program submitted for review and approval under this division, the determination of "viability" shall include, but not be limited to, consideration of an economic feasibility evaluation containing at least both of the following elements:

(1) An analysis of the gross revenue from the agricultural products grown in the area for the five years immediately preceding the date of the filing of a proposed local coastal program or an amendment to any local coastal program.

(2) An analysis of the operational expenses, excluding the cost of land, associated with the production of the agricultural products grown in the area for the five years immediately preceding the date of the filing of a proposed local coastal program or an amendment to any local coastal program.

For purposes of this subdivision, "area" means a geographic area of sufficient size to provide an accurate evaluation of the economic feasibility of agricultural uses for those lands included in the local coastal program or in the proposed amendment to a certified local coastal program.

(b) The economic feasibility evaluation required by subdivision (a) shall be submitted to the commission, by the local government, as part of its submittal of a local coastal program or an amendment to any local coastal program. If the local government determines that it does not have the staff with the necessary expertise to conduct the economic feasibility evaluation, the evaluation may be conducted under agreement with the local government by a consultant selected jointly by local government and the executive director of the commission.

Section 30242 establishes a general standard for the conversion of agricultural lands:

Section 30242. *All other lands suitable for agricultural use shall not be converted to nonagricultural uses unless (l) continued or renewed agricultural use is not feasible, or (2) such conversion would preserve prime agricultural land or concentrate development consistent with Section 30250. Any such permitted conversion shall be compatible with continued agricultural use on surrounding lands.*

The next section addresses protection of the soil resource itself:

Section 30243. *The long-term productivity of soils … shall be protected….*

Finally, the definition of prime land is found in Section 30113:

"Prime agricultural land" means those lands defined in paragraph (1), (2), (3), or (4) of subdivision (c) of Section 51201 of the Government Code.

These Section 51201 paragraphs define such lands as:

1. All land that qualifies for rating as class I of class II in the Natural Resource Conservation Service land use capability classifications.

2. Land which qualifies for rating 80 through 100 in the Storie Index Rating

3. Land which supports livestock used for the production of food and fiber and which has an annual carrying capacity equivalent to at least one animal unit per acre as defined by the United States Department of Agriculture.

4. Land planted with fruit- or nut-bearing trees, vines, bushes or crops which have a nonbearing period of less than five years and which will normally return during the commercial bearing period on an annual basis from the production of unprocessed agricultural plant production not less than two hundred dollars ($200) per acre

In terms of existing LCPs applicable to surrounding lands, the Santa Cruz City LCP does not identify specific required agricultural buffer distances; rather, buffers are to be "appropriate" to the case at hand. Santa Cruz City Land Use Plan Policy LU 3.1.3 does state support for "County policies and programs aimed at preservation of agricultural/grazing uses on the North Coast." The Santa Cruz County LCP provides for a 200 feet buffer between existing agricultural uses and new developments, with some exception, if site-specific analyses support a lesser buffer.

Public Services Policies

General development siting and public service issues are mainly the purview of Coastal Act Sections 30241(a) (already cited), 30250, 30252 and 30254.

Coastal Act Section 30250 states:

Section 30250(a). *New residential, commercial, or industrial development, except as otherwise provided in this division, shall be located within, contiguous with, or in close proximity to, existing developed areas able to accommodate it or, where such areas are not able to accommodate it, in other areas with adequate public services and where it will not have significant adverse effects, either individually or cumulatively, on coastal resources. In addition, land divisions, other than leases for agricultural uses, outside existing developed areas shall be permitted only where 50 percent of the usable parcels in the area have been developed and the created parcels would be no smaller than the average size of surrounding parcels.*

Section 30250(b). *Where feasible, new hazardous industrial development shall be located away from existing developed areas.*

Section 30250(c). *Visitor-serving facilities that cannot be located in existing developed areas shall be located in existing isolated developments or at selected points of attraction for visitors.*

Coastal Act Section 30252 states:

Section 30252. *The location and amount of new development should maintain and enhance public access to the coast by (1) facilitating the provision or extension of transit service, (2) providing commercial facilities within or adjoining residential development or in other areas that will minimize the use of coastal access roads, (3) providing nonautomobile circulation*

within the development, (4) providing adequate parking facilities or providing substitute means of serving the development with public transportation, (5) assuring the potential for public transit for high intensity uses such as high-rise office buildings, and by (6) assuring that the recreational needs of new residents will not overload nearby coastal recreation areas by correlating the amount of development with local park acquisition and development plans with the provision of onsite recreational facilities to serve the new development.

Coastal Act Section 30254 states:

Section 30254. *New or expanded public works facilities shall be designed and limited to accommodate needs generated by development or uses permitted consistent with the provisions of this division; provided, however, that it is the intent of the Legislature that State Highway Route l in rural areas of the coastal zone remain a scenic two-lane road. Special districts shall not be formed or expanded except where assessment for, and provision of, the service would not induce new development inconsistent with this division. Where existing or planned public works facilities can accommodate only a limited amount of new development, services to coastal dependent land use, essential public services and basic industries vital to the economic health of the region, state, or nation, public recreation, commercial recreation, and visitor-serving land uses shall not be precluded by other development.*

In general, Chapter 3 of the Coastal Act establishes clear parameters for the location, intensity, type, and design of new development in the coastal zone. First and foremost, Section 30250(a) requires that new development be concentrated in and around existing developed areas with adequate development capacities. Where such areas are not available, development must be located where adequate public services exist, and where the development will not have significant adverse effects, either individually or cumulatively, on coastal resources. Generally, public works such as water, roads and sewer systems, must be sized to serve planned development. Agricultural lands are to be preserved.

The Coastal Act also establishes a set of priority uses that operate within the locational and resource constraints for new coastal development. For example, if public services are adequate to support only a limited amount of urban growth, land use potential must be first allocated to coastal dependent uses, essential public services and vital industry, public and commercial recreation, and visitor serving development (Section 30254). The Coastal Act also requires that public recreational uses take precedence over private residential and general industrial or commercial development, but not at the expense of agriculture or coastal-dependent industry (Section 30222).

There are only limited exceptions to the general development requirements of the Coastal Act. Hazardous industrial development may be located away from developed areas (Section 30250(b)); and coastal-dependent industry may be permitted outside developed areas if other locations are infeasible or environmentally damaging, and the effects of such development are mitigated (Section 30260). Under Section 30250(c), visitor-serving facilities may also be located outside of urbanized areas, but only if urban locations are infeasible for such development. Visitor-serving facilities may also be located in existing isolated development nodes or at select points of attraction for visitors.

Finally, adequate separation between agricultural and urban uses is required. Overall, these requirements reflect a fundamental goal of the Coastal Act: to protect coastal resources by limiting new development to existing developed areas.

B. Applicable Provisions of Proposed CLRDP

As previously described, the CLRDP only provides for, and limits development on the Campus to, that that is directly associated with marine research and education (see proposed CLRDP Section 5.2, Land Use). A fundamental component of such development is the Campus seawater system that provides high quality seawater for use in research and education activities throughout the Campus. Public services to the site are purposefully limited to that necessary to serve only anticipated Campus development and not for any additional urban development on or off-site (see for example proposed CLRDP Section 5.2.3, Stable Urban/Rural Boundary, and Section 5.8.3, Utilities Policies). Part of this commitment includes a permanent one-foot wide utility prohibition zone at the western edge of the Campus established by the CLRDP through which new sewer and/or water utility lines and/or expansion of existing such lines are prohibited (again, see proposed CLRDP Section 5.2.3). To protect against potential conflicts that could harm the viability of adjacent agricultural operations, the CLRDP includes requirements: to cluster development within the three development nodes; to site and design development in response to wind patterns; to provide 200-foot setbacks from the western property line for non-housing uses (and 300 foot setbacks from established crop lines) and 500 foot setbacks for housing uses; to provide vegetative screening (including large scale windbreaks), and to include hold-harmless and indemnification agreements between UCSC and adjacent agricultural operators (again, see proposed CLRDP Section 5.2.3, and see Policy 3.8).

C. Coastal Act Consistency Analysis

1. Priority Uses

Bracketing the question of conversion of historic agricultural lands (see below), the Coastal Act gives priority to coastal-dependent and coastal-related development over other types of development proposed along the shoreline. As the Commission has previously articulated for the Terrace Point site, the existing LML campus core and the related CDFG and NOAA facilities have become, by location and co-use of coastal-dependent seawater facilities, an enclave of coastal-dependent/related marine research facilities separated from the residential and industrial uses of the urbanized areas of Santa Cruz to the east. Appropriate and available siting for such specialized and public serving coastal-dependent/related uses are rare in the coastal zone, and this site provides an important opportunity to pursue other integrated coastal-related research facilities.

If the site is to be developed at the scale proposed by the CLRDP (see also public viewshed findings), including converting historically agricultural lands to urban development (see also agriculture findings), such development must continue to be consistent in this respect with the Coastal Act's land use priorities. The CLRDP mostly accounts for this, including limited the bulk of development to marine research and education uses, but it also provides for a series of supporting facilities. While many of these facilities are difficult to separate from the seawater-based research they support (such as offices,

food service, conference/meeting space, etc.), the connection between the proposed housing units and marine research is more tenuous.

Specifically, the CLRDP allows for up to 110 short-term (3 year maximum stay) housing units (including 80 apartments and 30 researcher housing "rooms"), 10 overnight rooms, and 2 caretaker quarters (see Section 5.2.1). The University and CLRDP make a compelling case that the housing units may be needed to accommodate persons directly related to Campus marine research programs that require their on-site presence much of the time (e.g., certain researchers, employees, etc. – see also Section 4.2.3). The University has also articulated a vision for the campus that would provide for close interaction between members of the research community, including by being able to live at the Campus. The University has committed to only developing such housing as demand warrants. In all cases, as indicated by the University, the Commission fully expects that any housing units will only be provided for and used by persons directly involved with marine research programs on the Campus, will only be provided to those persons who need to be present on the site on a regular and substantial basis, and will only be used by persons who continue to satisfy such requirements (see, for example, CLRDP Policy 2.4 et seq, Support Housing). In such case, and only so long as it remains such case, the Commission can find the CLRDP's support housing provisions generally consistent with the land use priorities of the Coastal Act inasmuch as such housing is directly required for the effectiveness of the coastal-dependent/related use it supports. Minor modifications to the CLRDP locational description for the proposed housing are otherwise needed, though, to ensure that the proposed housing remains consistent with other Coastal Act priority land use and resource protection requirements. In particular, with respect to land use priorities, it is important that lower priority residential uses not be sited in lower LML development node, closest to the shoreline; and that the core marine science campus area in the middle development node not be diluted, again, by lower-priority residential uses. Clustering of residential uses to the east in the middle development node, achieves this objective. It also minimizes potential impacts to wetland and habitat uses from typical activities associated with residential development (see also habitat findings below).

2. Agricultural Conversion

The Campus is a former brussel sprouts field. Prior to 1976, the entire Campus site (except for what is now Younger Lagoon Reserve) was actively farmed (see time series air photos in Exhibit B). Terraced areas to the west of McAllister Way were converted starting in 1976 from row crop agricultural use to marine laboratory use; some with an agricultural component.[26] The remainder of the property (east of McAllister Way and north of Delaware Avenue Extension) was in active brussel sprout production until 1988.

The Environmental Impact Report (EIR)[27] for the CLRDP describes that some of the Campus contains prime agricultural soils:

[26] The Commission's initial approval of marine lab use on the lower portion of the terrace west of McAllister Way (i.e., within the current main LML node) was conditioned on the middle portion (i.e., that portion of the current Middle Terrace zone west of McAllister Way) remaining in agricultural use (coastal development permit P-1859 in 1976).

[27] Pursuant to the California Environmental Quality Act (or CEQA). See also CEQA findings at end of this report.

> *Three soil types occur on the terrace portion of the project site – Elkhorn sandy loam #132, Elkhorn sandy loam #133, and Watsonville loam #178. Of these three soil types, only Elkhorn sandy loam #132 soils are classified as prime soils by the California Department of Conservation, Division of Land Resource Protection, provided that they are irrigated. Elkhorn sandy loam #132 soils occupy about 26 acres, and occur on the eastern 1/3rd of the upper terrace and the majority of the middle terrace area.*

However, the EIR also summarizes a site-specific report for the area east of McAllister Way as demonstrating that the soils should not truly be considered prime, because the former irrigation well collapsed.[28]

The proposed land use does not literally meet either test of Section 30241 for allowing agricultural land conversion, but does satisfy equivalent parameters embodied in each test – particularly when considered together. The first test allows conversion where the viability of existing agricultural use is already severely limited by conflicts with urban uses. Information provided by the University indicates that viability is already severely limited, as summarized in the EIR for the CLRDP:

> *The project site was surveyed and, following the California Department of Conservation Land Evaluation and Site Assessment (LESA) Model analysis, a determination of agricultural suitability was conducted for the 54.5-acre terrace property acquired by the University and added to the Marine Science Campus. Five agricultural scenarios were evaluated by the LESA Model in order to demonstrate potential agricultural uses ranging from no-restrictions farming to 500-foot pesticide setbacks. In each scenario, the project site was shown to be a less-than-significant agricultural resource... A further agricultural viability analysis was conducted that compares anticipated crop production costs and revenues with the water supply and infrastructure costs. That analysis…showed that the project site was not economically viable for agriculture due to high water-related costs.*

The EIR for the CLRDP also summarizes points in the above-referenced 1995 "Final Agricultural

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[28] The agricultural significance of the three soil types on the terrace portion of the site can be assessed using capability class and Storie Indices from the USDA Soil Survey for Santa Cruz County. Prime soils are considered to have a capability Class of I or II, or a Storie Index of 80 to 100. (The capability class assesses the ability of the soil to be used for field crops such as beans, sugar beets, grains, etc., while the Storie Index portrays the soil suitability for overall crop production.

About 26 acres of the terrace is Elkhorn sandy loam #132. This soil type is considered to be Class I, but only if irrigated as defined by the USDA Soil Survey. If not irrigated, the soil is considered to be Class III (non-prime). No irrigation water sources have existed on the property since 1988 when the irrigation water well collapsed. Because of drainage constraints this soil has a non-prime Storie Index of 73. Since no agriculture irrigation water source exists on the site, the soil is considered by definition to be non-prime.

About 8 acres of the terrace is Elkhorn sandy loam #133. This soil type is considered to be Class IIIe non-prime with or without irrigation. Soil erosion potential is a limiting factor to crop production. The Storie Index is a non-prime 66.

Another 26 acres of the terrace is Watsonville loam #178. This soil type is considered Class IIIw non-prime with or without irrigation. Soil wetness is a limiting factor to crop production. The Storie Index is also a non-prime 50. Soil testing of soil textures conducted in 1995 indicated that soil capability was non-prime in all but two locations. Two tests along the western portion of the 60-acre property showed two areas to have prime soil textural characteristics. However, because irrigation water was not available, the entire 60-acre site was determined to be non-prime farmland.

Suitability Study."[29] Although some of the points do not support a conversion pursuant to the Coastal Act criteria, relevant points that do include that the site has poor drainage and poor irrigation water quality.

With regard to the 16 acres of middle terrace land west of McAllister Way (consisting of Elkhorn sandy loam, that is prime if irrigated) currently containing greenhouses, the EIR determines that reestablishment of field agriculture on this land is considered infeasible because of a number of factors including the presence of both permanent structures such as the California Department Fish and Game (CDFG) Marine Wildlife Center and temporary structures such as trailers and greenhouses; the fragmented nature and irregular shape of the land parcel flanked on the one side by marine lab buildings and on the other by McAllister Way; and the lack of irrigation water since the on-site irrigation water well collapsed in 1988 and is no longer available. The EIR indicates that the loss of the greenhouse agriculture would be insignificant and does not discuss the feasibility of maintaining it.

The Commission agrees that agricultural viability has been compromised. Previous actions allowing for coastal-dependent development on portions of the Campus have reduced the area available for renewed agriculture, especially if these newer uses would require buffering. According to the EIR, "the [NOAA Fisheries Lab] and the Seymour Discovery Center were constructed on those portions of the 60-acre Terrace Point site that had the best soil suitability for farming, and the presence and public use of these facilities further limits the agricultural suitability of the remaining 54.5 acres of the terrace land." In both of these cases, though, the Commission recognized that agriculture might continue on lands adjacent to these facilities.[30] And, bracketing the desirability of farming in wetland and related habitat areas that have become more evident since farming of Terrace Point ceased in 1988, agriculture may still be feasible on lands surrounding the existing approved nodes of development (LML, NOAA, and CDFG facilities). The University could, for example, potentially reestablish agriculture on the site through its agroecology program, albeit admittedly not at the industrial scale and intensity of former years.

Another Coastal Act test allows conversion where it would complete a logical and viable neighborhood and contribute to the establishment of a stable limit to urban development. The Commission has previously found that the existing residential neighborhood (De Anza MHP) is a complete neighborhood (a wall separates it from the campus) and that an urban-rural boundary existed along the wall and Shaffer Road. Subsequent incremental permit approvals for isolated, high priority development have not determined otherwise, and the question of the ultimate land use of the remainder of Terrace Point that was a sticking point in the original 1981 LCP review, including with respect to questions of agricultural conversion, has remained unresolved The proposed CLRDP does not result in the completion of a traditional neighborhood as that term is typically understood for purposes of Coastal Act section 30241. It does result, however, in the completion of a coastal-dependent/coastal-related marine science campus, in a location uniquely suited for such development, and a potentially stable limit to this marine research development and urban development to the east, as discussed in the next part of this finding. In other

[29] By Sage Associates.

[30] See 3-97-050 (Marine Discovery Center); and CD-50-98 (NMFS-NOAA Fisheries Lab).

words, it does result in the completion of a marine research "neighborhood" that can, if structured properly, help strengthen the urban-rural boundary.

In conclusion, the Commission finds that this agricultural land at the City's edge does not automatically qualify for conversion to non-agricultural uses, even if the agricultural use has been abandoned. The Commission previously found that the majority of the Campus site (before it was owned by the University) was not appropriate to be fully converted to residential uses.[31] Nonetheless, the Commission now finds that with changed circumstances, conversion to the uses specified in the CLRDP is appropriate for the following reasons.

Coastal Act policies clearly support the habitat protection and restoration[32] and coastal-dependent/related marine research and education uses that would occur through implementation of the CLRDP. By virtue of having a seawater system, the Campus site presents a rare and significant opportunity for expansion of coastal-dependent/related uses, which are also priority uses for oceanfront locations under Section 30255 (see also public services finding below). Also, if new development on the site were limited to renewed agriculture, Section 30255 use priorities would not be met. Similarly, with Younger Lagoon, YLR, terrace wetlands and related habitats (including foraging habitat, movement corridors, etc.), and with the Wilder Creek and Moore Creek/Antonelli Pond systems nearby, the Campus site also presents a significant opportunity for wetland and other habitat enhancement and protection both on-Campus and in relation to the overall area. Indeed, since farming of the property ceased in 1988, over seven acres of wetlands have been identified on the site that should be protected under Coastal Act sections 30233 and 30240. Without these lands in agriculture, though, and applying even 100-foot buffers to them, there remains limited land available for farming (about 20 acres or so), and these land areas are also both a part of related habitats (movement corridors, foraging habitat, etc. – see also habitat findings) as well as being penned in by these habitat areas and by residential uses and coastal-dependent/related development. In other words, agricultural use would not be without significant issues, and if the Commission does not allow conversion of the agricultural soils on the property (and use of the site beyond existing developments was limited to agriculture), the habitat protection requirements of the Coastal Act would not be met. The Commission has a history of supporting similar habitat protection and restoration on former agricultural land.[33]

As discussed, the Coastal Act does allow for agricultural conversions in some cases. While the criteria of Section 30241 may not be strictly satisfied in this case, the Commission agrees that the significance of the agricultural resource of the Campus has been compromised and the likelihood and desirability of returning it to agricultural use is low, even if the CLRDP is not certified. Agricultural use no longer exists at the site. Further, although much of the land remains open and could be returned to agricultural use and the University, especially through its agroecology program, could be in a position to do so, there

[31] Commission findings on the Westside Lands Area of Deferred Certification. In these findings, the Commission identified the eastern boundary, not the western boundary, of Terrace Point as the urban-rural boundary, and LML was identified as an intentionally isolated resource-dependent facility.

[32] See also habitat findings that follow.

[33] See, for example, City of Watsonville LCP amendment 1-99 and related coastal permits for the PVUSD high school that also resulted in former agricultural lands being restored for habitat purposes in light of the significance of the habitat function of these lands.

is no mechanism for the Commission to require that the University resume agricultural uses. Nor is it clear that this would be the best use of this land in light of existing conditions. Existing development limits the full agricultural potential of the site, bringing in to question its value as agricultural land. Significant wetland and related habitat resources have been identified on the site that likely would go unprotected, and certainly not enhanced, absent the CLRDP. While the conversion to marine-related uses does not literally complete a traditional neighborhood, it does serve to concentrate a priority type of urban-level development that requires urban services in close proximity to urban Santa Cruz City, completing a marine research "neighborhood." In light of the reality of diminished agricultural value at the site, the unique opportunity for completion of a coastal-dependent/related marine research campus "neighborhood," the manner in which such a completed Campus (and CLRDP) can contribute to the establishment of a stable urban-rural boundary (see also finding below, and other findings of this report), the significance and importance of protecting and enhancing on-site habitat and its relation to surrounding habitat resources, and when considered together in relation to this unique site, the proposed use designations of the CLRDP, as modified herein, are more protective of significant coastal resources than would be renewed agricultural use. Given the unique opportunity to complete a marine research campus ("neighborhood") in such a way as to finally stabilize the urban-rural boundary of the Westside of Santa Cruz, and given the limited potential of renewed agriculture on the site, conversion from agricultural use to non-agricultural use is consistent with the above-cited agricultural conversion requirements of the Coastal Act.

In making this finding, the Commission notes that the CLRDP's commitment to, and appropriate timing of, the habitat restoration, is not absolute, as discussed elsewhere in this report. Therefore, some modifications of the habitat restoration and related provisions are necessary to ensure that the former agricultural lands that have taken on wetland and other habitat characteristics, are timely enhanced and remain as such, as enumerated elsewhere in this report.

In addition, although the proposed CLRDP can be found mostly consistent with the Coastal Act policies cited above, there are series of changes necessary to ensure that the CLRDP adequately provides for priority uses as protected by the Act (see conclusion below).

3. Protection of Adjacent Agriculture

Row crop agriculture, primarily brussel sprouts, exists adjacent the Campus to the west outside of the City of Santa Cruz. Brussel sprouts are a one crop per year growing operation with an approximate eight-month growing cycle. Dust generating activities (for field preparation) usually occur a few times per year with fertilizer application taking place over the course of the growing season and pesticide application taking place every few weeks. High prevailing westerly winds sweep across a relatively treeless area to the east towards the Campus, typically bringing noise, dust, and odors from the farming operations to the Campus site. A 12-foot berm along the western side of the lower Campus does act as a wind barrier. The existing minimum buffer distance between buildings on Campus and the farmland to the west is approximately 150 feet; as shown below:

Approximate Distance Between Coastal Commission-Approved Development at the Campus and Adjacent Agricultural Operations

Long Marine Lab (1976 – 1999).....400 feet
CDFG (1994 - 2005).....150 feet
NOAA Fisheries (1998)..... 700 feet[34]

The Commission's 2000 Issue Identification comments found that the primary agricultural issue raised by a potential CLRDP at this site would be ensuring adequate buffers and legal mechanisms to avoid or reduce any potential impacts to, or conflicts with, adjacent agricultural lands and uses. Related to this issue, the Commission was also concerned about establishing appropriate allowable uses within buffers areas, and including legal mechanisms to assure buffer effectiveness.

Buffers are necessary to ensure that continued agricultural cultivation is not threatened by proximity to non-agricultural uses should standard agricultural practices (such as chemical spraying and fertilizing) or ongoing agricultural by-products (such as dust and noise from machine operations – cultivating, spraying, harvesting, et al) be seen as incompatible and/or a threat to the non-agricultural uses. Appropriate buffers are particularly relevant for the Terrace Point area because of the high prevailing westerly winds that typically sweep across this relatively treeless area bringing noise, dust, and odors from adjacent farming operations to this site.

The Coastal Act does not provide for specific buffer distances; these are appropriately determined through localized planning processes such as LCPs and CLRDPs. The City of Santa Cruz LCP, although not the standard of review in this case, could provide some guidance for this uncertified portion of the City. The City's LCP, however, provides little specificity in terms of required buffer distances. Rather, buffers are required to be "appropriate" to the case at hand.[35] Santa Cruz City LUP Policy LU 3.1.3 does state support for "County policies and programs aimed at preservation of agricultural/grazing uses on the North Coast." Within Santa Cruz County jurisdiction (Younger Ranch is located within the County directly abutting the City limits) the required agricultural buffer distance is 200 feet. This 200-foot buffer can be reduced if site specific analyses support a lesser buffer.

The proposed CLRDP contains adequate concepts to protect adjacent agriculture, both directly in terms of minimizing the potential for Campus site use to impact the adjacent agricultural operations and indirectly in terms of not encouraging additional conversion of agricultural land off-site. The CLRDP buffers have been developed based on a site-specific analysis of the buffering requirements of the current adjacent agricultural operation. Included in this analysis is the adjacent agricultural operator's permit to use a pesticide (Telone II) that cannot be sprayed within 300 feet of occupied structures when applied in consecutive years. Based on such factors the University and the EIR preparers concluded that

[34] The associated utility lines were located 500 feet from agricultural operations to the west. At that time, NOAA agreed to relocate the utility easement to be outside of the 500-foot buffer (through CD-50-98) in the event that a future LCP or LRDP planning process indicated that a 500-foot buffer was appropriate.

[35] In attempting to determine the appropriate buffer distance for this site in 1998, the City contracted out for a study on the topic. For this 1998 research (Mintier & Associates, Terrace Point – Survey Re: Passive Uses Within Buffers, 1998), a survey was conducted of 16 counties and 4 cities in the State to determine agricultural buffer policies. The results were highly variable. For those jurisdictions where a specific buffer distance was specified, row crop (e.g., brussel sprouts) buffers ranged from 25 feet to 500 feet. In almost every case, buffer distance requirements could vary from the specified distance (both increase and decrease) depending upon site-specific conditions.

the CLRDP's variable 200/300/500 feet described above is an adequate buffer width, and the Commission concurs.[36] Measures to landscape the buffer and the hold harmless/indemnification agreement requirements will help reduce any instances of Campus users intruding on the farmlands and instances of dust, noise, pesticide drift, and the like intruding onto occupied Campus lands and causing complaints about the adjacent operation. In addition, CLRDP provisions to ensure that utilities and services do not extend into, and are not sized to serve, the adjacent agricultural land also help to ensure that implementation of the CLRDP does not induce conversion of nearby agricultural lands (see also public services discussion below). Although fencing is an added measure recommended in the EIR and included in the CLRDP, it is redundant given the buffer distances, the siting and design requirements, the landscaping provisions, and the legal protections. Moreover, such fencing is counterproductive to protecting the public viewshed and habitat areas along that margin of the site (i.e., the area along the property line interface with western agricultural lands is all ESHA and ESHA buffer). Accordingly, modifications are included to remove such fencing (see also findings that follow). Other modifications to related CLRDP provisions (e.g., for resource protection, utility placement and capacity, capital improvements timing) do not conflict, and will also help ensure consistency, with these policies.

4. Public Services/Urban-Rural Boundary

Public service provision to the Campus has been incrementally cautious since 1976 to avoid growth inducement and agricultural conversion outside of the urban-rural boundary (as described above, historically found by the Commission to be the eastern edge of the current Campus boundary). The Commission has been careful to ensure that permitted utility infrastructure for LML would not be growth inducing and would not frustrate any future LCP/CLRDP planning efforts for the LML site and Terrace Point. Towards this end, the Commission has been careful to limit public services to those necessary to serve the coastal-dependent/related facilities authorized. Specifically, projects have been designed to only meet LML demand, and special conditions have been imposed which do not allow for non-LML users to utilize these facilities.

As described above, the Campus site is located at the transition from the urbanized portion of northern Monterey Bay into Santa Cruz County's rural and agricultural north coast, and an area of rural coast extending roughly to Half Moon Bay. This transitional location is a fundamental reason that the development of LML and related marine lab facilities have been allowed at this site over its development history. This transitional location has allowed for, and continues to provide, a relatively isolated location within which marine research can successfully take place relatively buffered from urban uses. At the same time, the site is close enough to necessary urban services (water, sewer, etc.) that it has not – particularly as structured and conditioned over time – induced inappropriate growth as might occur with a relatively more isolated site that requires such services to be extended a long ways through rural areas. As such, the site is uniquely situated for the types of uses developed to date, and those proposed in the CLRDP.

The CLRDP will result in the completion of a coastal-dependent/coastal-related marine science campus.

[36] Note that the 500-foot buffer width has been the distance historically recommended by the owners of Younger Ranch during the course of previous UCSC development proposals for the site.

Such completion is premised on maintaining the relative isolation of the facility while still benefiting from its proximity to the City and urban services. As such, the CLRDP maintains and strengthens the urban-rural boundary along the east of the site. This is particularly the case due to the elimination of the possibility that water and sewer facilities could be extended west of the site (pursuant to the CLRDP's utility prohibition zone), and the fact that utilities to the site are purposefully limited to that necessary to serve only anticipated Campus development and not for any additional urban development on or off-site. In addition, the agricultural buffers and agricultural protection provisions described above will also help stabilize the boundary between urban Santa Cruz and the rural north coast even more. Also, as structured to protect established habitat resources, the effectiveness of the site itself as an urban-rural buffer is enhanced. Thus, although the site remains just outside of the urban-rural boundary as an intentionally isolated "island" of facilities, the CLRDP effectively serves to limit development to the west, and it can be found consistent with the Act in this respect.

In terms of public service supply, the CLRDP details the level of services needed (see CLRDP Section 5.8), and requires that the University shall contribute a fair share portion of any necessary utility upgrades in the City of Santa Cruz. The City has not indicated that there are significant issues with serving the site in this respect.

That said, although the proposed CLRDP can be found mostly consistent with the Coastal Act policies cited above, there are series of changes necessary to ensure that the CLRDP adequately accounts for public services as required by the Act (see also conclusion below).

D. Land Use Conclusion

As introduced above, there are a series of CLRDP modifications that are necessary for the Commission to be able to find the proposed CLRDP consistent with the policies cited above with respect to land use (see suggested modifications, including those in Exhibit E). Major suggested modifications would achieve the following: limiting improvements to Shaffer Road to that necessary to serve the Campus so as to protect wildlife and to not to prejudice future planning for the remainder of the Westside Area of Deferred Certification and surrounding areas by requiring a premature roadway improvement (e.g., modifications to Sections 2.3.1 and Implementation Measure 5.1.3); ensuring that the former agricultural lands become viable habitat (see also habitat findings); eliminating fencing along the western portion of the site (see also viewshed findings); and ensuring that housing is only built when needed to accommodate coastal-dependent/related workers and students (e.g., modification to Section 7.2.5). Other related and overlapping modifications required to find land use consistency are found throughout the CLRDP, including modifications related to habitat, public access, and public viewsheds, and modifications designed to ensure that the CLRDP as a whole functions correctly in order to ensure that the specific land use provisions are fully implemented (see suggested modifications, including those in Exhibit E).

In conclusion, if so modified in all of the ways outlined here according to the cited modification texts, then the CLRDP as modified is certified as being consistent with the land use provisions of the Coastal

Act.

2. ESHA, Wetlands, and Associated Habitat Resources

This section details habitat-related issues, including those related to ESHA, wetlands, and water quality.

A. Applicable Policies

Section 30107.5 of the Coastal Act defines environmentally sensitive areas as follows:

> ***30107.5:*** *"Environmentally sensitive area" means any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments.*

The term ESHA, or environmentally sensitive habitat area, comes from the Section 30107.5 definition as it applies to habitat areas. The Act prohibits almost all development within ESHAs, and requires that adjacent development be sited and designed so as to maintain the productivity of such natural systems. In particular, Coastal Act Section 30240 states:

> ***Section 30240(a).*** *Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas.*
>
> ***Section 30240(b).*** *Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas, and shall be compatible with the continuance of those habitat and recreation areas.*

Article 4 of Chapter 3 of the Coastal Act also describes protective policies for the marine environment, including water quality, and specifically calls out wetland resources. Coastal Act Sections 30230 and 30231 provide:

> ***Section 30230.*** *Marine resources shall be maintained, enhanced, and where feasible, restored. Special protection shall be given to areas and species of special biological or economic significance. Uses of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes.*
>
> ***Section 30231.*** *The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference*

with surface water flow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.

In addition, Coastal Act Section 30233(a), 30233(c) and 30233(d) specifically address wetlands protection. In particular, Coastal Act Section 30233 limits development in wetlands to a few limited categories where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects:

Section 30233(a). *The diking, filling, or dredging of open coastal waters, wetlands, estuaries, and lakes shall be permitted in accordance with other applicable provisions of this division, where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects, and shall be limited to the following:*

(1) New or expanded port, energy, and coastal-dependent industrial facilities, including commercial fishing facilities.

(2) Maintaining existing, or restoring previously dredged, depths in existing navigational channels, turning basins, vessel berthing and mooring areas, and boat launching ramps.

(3) In wetland areas only, entrance channels for new or expanded boating facilities; and in a degraded wetland, identified by the Department of Fish and Game pursuant to subdivision (b) of Section 30411, for boating facilities if, in conjunction with such boating facilities, a substantial portion of the degraded wetland is restored and maintained as a biologically productive wetland. The size of the wetland area used for boating facilities, including berthing space, turning basins, necessary navigation channels, and any necessary support service facilities, shall not exceed 25 percent of the degraded wetland.

(4) In open coastal waters, other than wetlands, including streams, estuaries, and lakes, new or expanded boating facilities and the placement of structural pilings for public recreational piers that provide public access and recreational opportunities.

(5) Incidental public service purposes, including but not limited to, burying cables and pipes or inspection of piers and maintenance of existing intake and outfall lines.

(6) Mineral extraction, including sand for restoring beaches, except in environmentally sensitive areas.

(7) Restoration purposes.

(8) Nature study, aquaculture, or similar resource dependent activities.

Section 30233(c). *In addition to the other provisions of this section, diking, filling, or dredging in existing estuaries and wetlands shall maintain or enhance the functional capacity of the*

wetland or estuary. Any alteration of coastal wetlands identified by the Department of Fish and Game, including, but not limited to, the l9 coastal wetlands identified in its report entitled, "Acquisition Priorities for the Coastal Wetlands of California", shall be limited to very minor incidental public facilities, restorative measures, nature study, commercial fishing facilities in Bodega Bay, and development in already developed parts of south San Diego Bay, if otherwise in accordance with this division.…

Section 30233(d). *Erosion control and flood control facilities constructed on water courses can impede the movement of sediment and nutrients which would otherwise be carried by storm runoff into coastal waters. To facilitate the continued delivery of these sediments to the littoral zone, whenever feasible, the material removed from these facilities may be placed at appropriate points on the shoreline in accordance with other applicable provisions of this division, where feasible mitigation measures have been provided to minimize adverse environmental effects. Aspects that shall be considered before issuing a coastal development permit for such purposes are the method of placement, time of year of placement, and sensitivity of the placement area.*

B. Applicable Provisions of Proposed CLRDP

As described above, the CLRDP maps all of YLR, all delineated wetlands, all wildlife corridors, all of the rock shelf shoreline (fronting the terrace) and all buffers to YLR, wetlands, wildlife corridors, and rocky shoreline as natural habitat resource areas to which are applied the CLRDP land use designations of "Resource Protection," "Wildlife Corridor," and "Resource Protection Buffer." In addition, all grassland areas outside of identified development zones and buffers are designated as natural habitat resource areas and given a land use designation of "Open Space." Together, these designations essentially preclude non-resource dependent development within them (see also previous description of the CLRDP resource protection framework above). Likewise, as detailed previously, in addition to requiring avoidance of these natural habitat resource areas by virtue of these land use designations, CLRDP resource requirements are designed to ensure that Campus development does not adversely impact these natural habitat resource areas through requiring appropriate siting and design (including by requiring adequate screening, noise and light attenuation, etc.). The CLRDP also includes a commitment to water quality BMPs in series for filtering and treating Campus drainage and runoff to meet water quality standards, and directing that cleansed runoff to natural habitat resource areas to ensure and enhance their hydrologic (and related) productivity. Finally, the CLRDP commits the University to vegetation and hydrology enhancement of these natural habitat resource areas, other than within YLR,[37] at least partially to offset some of the impacts from Campus facility development. Applicable provisions in this regard are found primarily in Chapter 5, Chapter 9, and Appendix A (see Exhibit E).

The CLRDP also designates a subset of these natural habitat resource areas as ESHA (see proposed CLRDP Section 3.7 and Appendix B). All of YLR is so designated, as is the rock shelf area seaward of the terrace, and as are all of the terrace wetlands with the exception of one.[38] The CLRDP almost

[37] See also finding below regarding the relationship of the Younger Lagoon Reserve Management Plan to the CLRDP.

[38] The one wetland not designated as ESHA is a small wetland area in the northeast part of the site that would be avoided by virtue of the fact that it is located within the northernmost wildlife corridor/buffer.

exclusively relies on these ESHA designations to justify the land use designations applied above. The CLRDP also requires that potential development areas be evaluated for the presence of ESHA at the time of development (as a means of evaluating changed circumstances).

C. Coastal Act Consistency Analysis

1. Habitat Resource Background

Although there has clearly been significant development to date, the Campus site is mostly undeveloped and home to substantial natural habitat resource areas. Most obvious among these is Younger Lagoon proper located within YLR. In addition to the Lagoon itself, the Reserve overall serves as a wildlife refuge and provides for research and teaching in the field sciences. According to the Reserve Manager, more than 200 species of birds have been identified at the Reserve, including nearly two dozen that are State and/or Federally listed. The endangered Tidewater Goby has also been found in the brackish waters of the Lagoon.[39]

On the undeveloped terrace portion of the site, ruderal grassland and wetlands dominate the landscape. The undeveloped terrace area has been known to be used by a wide variety of wildlife, including amphibians and reptile species, rodents, larger mammals, and an abundance of bird species – including raptors. Eight listed bird species, including several raptor species, have been identified on the terrace, as has the listed California red-legged frog near the Campus boundary at the railroad tracks. The undeveloped upper portion to the site, particularly that located along the railroad tracks, provides an area for wildlife movement between the Moore Creek/Antonelli Pond system to the east, other habitat systems to the west (such as Wilder Creek and Wilder Creek Lagoon), and YLR. It appears that the undeveloped terrace portion of the site currently provides significant foraging and dispersal habitat, but not necessarily breeding/nesting habitat.[40]

To date, the Commission has deemed only two discrete portions of the Campus site ESHA: Younger Lagoon itself (but not YLR overall) and the wetland nearest the LML complex (called Wetland W5 by the CLRDP). Areas containing the remaining terrace wetlands and other habitat areas now delineated in the CLRDP have not been before the Commission since agricultural use of the site was terminated, and thus their ESHA status has not been evaluated before now.

2. Relation of CLRDP to Habitat Protection Generally

The Coastal Act protects ESHA, wetlands (including wetlands that are also ESHA), and natural habitat resources, and only allows very limited development either in or adjacent to these areas. The Campus is home to significant natural resources, including wetland areas and ESHAs (including wetlands that are ESHA), and including other areas used by listed and non-listed species (for nesting, foraging, movement corridors, etc.). Over a quarter of the Campus is occupied by YLR itself, and the remaining terrace area includes substantial area of delineated wetlands, foraging habitat, and other natural resources (about 40

[39] See proposed CLRDP Section 3.7 and CLRDP Appendix A for detailed information on species observed in YLR and their status.

[40] Again, see proposed CLRDP Section 3.7 and CLRDP Appendix A for detailed information on species observed on the terrace portion of the site and their status.

acres). The CLRDP generally identifies known ESHA, wetlands, wildlife use areas, and related grasslands; prohibits non-resource development within these areas through resource protection land use designations; applies buffers from these areas; provides for clean hydrologic inputs; and includes specific siting and design criteria to ensure that Campus development does not adversely impact these resources. Thus, and in large measure, the proposed CLRDP clearly protects ESHA, wetlands, and related natural habitat resource areas as directed by the Coastal Act. The University has gone to great lengths to identify such natural habitat resources, and has taken seriously the mandate to avoid and buffer them appropriately. In fact, all told, about 65 acres of the Campus site, or nearly two-thirds of the Campus, have been made off-limit to most development (including all major facility development) by the CLRDP provisions described in the preceding section. That said, there are a series of Coastal Act habitat resource consistency issues raised by the CLRDP as proposed as described in the following sections.

3. CLRDP ESHA Designation for Younger Beach

The CLRDP designates the sandy beach fronting Younger Lagoon as ESHA, and applies a resource protection land use designation overlay to this area. As a result, the CLRDP prohibits general public access to Younger Beach, and by extension direct surfing access to the surf break immediately offshore. The lack of public access to this beach area has long been an issue at the site. The University has been allowed to limit general access to it since 1981, subject to periodic reevaluation. In 2001 (the only time the issue was re-evaluated to date) the Commission allowed this limitation to continue on a temporary basis.[41]

Although it is clear that YLR represents a protected natural system by virtue of the resources present there and the University's closure policy to date, and that its habitat value is high as a result, the sandy beach area does not meet the ESHA threshold. This beach area is not unlike beaches extending further west along the rural north Santa Cruz County coast that are less frequently accessed than more urban beaches, and that provide additional wildlife habitat (in addition to public access and recreation benefits) as a result. The Commission is unaware of evidence showing that the beach provides an "area in which plant or animal life or their habitats are either rare or especially valuable" as is required for an ESHA designation. Species observations relative to the sandy beach area do not support an ESHA designation. With respect to snowy plover (a California Species of Special Concern and a federal Threatened species), the University indicates that snowy plover have been observed on the beach here some twenty years ago (in 1983), "but the narrowness of the beach and the lack of subsequent observations suggest mainly non-breeding and occasional use."[42]

It is clear that YLR provides protected habitat overall, and that portions of it can be considered ESHA (see also below). But, given the biological evidence, the sandy beach area does not meet the threshold necessary for ESHA delineation, and it needs to be distinguished from the remainder of YLR. As also discussed below in the public access and recreation finding, in light of this, public access, albeit low-

[41] See also public access and recreation findings.

[42] CLRDP EIR 4.4-41

intensity and managed, must be provided to the beach area as required by the Coastal Act mandate to maximize public access, including surfing access. Modifications are suggested to clearly distinguish the beach area in this respect, and to allow low intensity use of it, including disallowing access inland of the beach and into the heart of YLR itself. Access inland of the sandy beach would be into areas where resources become more and more sensitive the further inland one goes, and allowing access there would not be appropriate for resource protection purposes. Access to the beach area nearest the ocean, however, will be far enough removed from this more inland "core" habitat area, including being mostly separated from central lagoon by about 300 feet of vegetated dune field area. The intent here is not to require a substantially different beach access to be developed and advertised, but rather to acknowledge the historic and current use (notwithstanding the University closure) of the beach area, primarily for surfing access, and to accommodate such use. It is expected that use of the beach will remain extremely limited, in part because the existing access path to the beach is uneven, narrow, and includes a "goat trail" descent/ascent where it meets the beach itself. Such sandy beach area use would be adequately buffered (by distance) from more sensitive portions of the reserve. Improvements to this accessway would only be required if demand and public safety warrants. Modifications to implement such changes to the CLRDP are found throughout the document, including Sections 5.3 and 5.6 (see Exhibit E).

4. Other CLRDP ESHA Designations

In addition to the issues regarding the beach area, the CLRDP's ESHA designations for other areas involve the following concerns:

YLR Overall

The CLRDP designates all of YLR as ESHA. As described above, it is clear that YLR has a high abundance and diversity of wildlife use, and its protected status as a University Reserve fosters this. It is clear that the Reserve provides significant habitat. Younger Lagoon itself is an important, relatively undisturbed coastal lagoon. The lagoon is surrounding by upland habitat areas that again, are relatively undisturbed. The lagoon and surrounding area are also an important piece of a patchwork of remaining habitat areas in the vicinity of Terrace Point, including Moore Creek Preserve and Antonelli Pond, and habitat areas at Wilder Ranch State Park. Protecting such habitat resources, particularly in the context of the amount of development contemplated on the terrace, is important. Given the biological resources, it is reasonable to conclude that this area (other than the beach area as described above) be called out as ESHA and protected as such, as in proposed by the CLRDP.

All Terrace Wetlands Except One

Other than Wetland W7, the CLRDP designates all of the terrace wetlands as ESHA. As discussed below, the Commission's staff ecologist participated directly in the identification and delineation of wetlands on the site (see also delineation findings below). Given the characteristics and values of the identified wetlands the University has reasonably concluded that all but one should be designated as ESHA. The CLRDP accordingly does not allow development in these areas, and the University has committed through the CLRDP to their long-term protection, enhancement, and management.

Rock Shelf Area

The CLRDP appropriately designates the rock shelf seaward of the terrace as ESHA. This rock shelf area is not that accessible, and is relatively undisturbed. That said, the area to which the ESHA designation applies is unclear in the CLRDP, including to what extent it applies to areas within the Commission's retained jurisdiction. Modifications are provided to ensure that the area is accurately mapped and characterized in this respect.

5. CLRDP Wetland/ESHA Identification

Current Wetland Delineation

There has been a fair bit of controversy over the past several years regarding the extent to which the site supports wetlands that should be delineated per the Coastal Act. At least part of this controversy has been based on the extent to which certain wetland indicator species, most notably the obligate wetland species Douglas' baccharis (i.e., a species that occurs almost always in wetlands), are found throughout the site in areas that were not delineated by the University as wetland. In this respect it should be noted that the University contracted for one of the most comprehensive wetland evaluations performed in the coastal zone, and that the Commission's staff ecologist participated in both identifying the study methodology and ultimately peer reviewing its findings and conclusions. In sum, the Commission's staff ecologist concurs with the final wetland delineation shown in the CLRDP, and does not believe that there are additional areas of wetland on the site that have not yet been delineated.

Future Wetland/ESHA Identification

ESHA and wetlands and related habitat resources are dynamic and subject to change over time. Although the CLRDP identifies what is known today, the maps that correspond with these designations cannot be relied upon as the only indicator for future resource identification, particularly given the possibility that some contemplated development may not occur for many years. Rather, information known at the time of proposed development projects must be considered as well, and any resources that might be newly identified at that time should be protected as directed by the Act. The CLRDP accounts for this to a degree, but there is a lack of clarity in the proposed requirements in this regard (see CLRDP Section 5.3). Modifications are suggested to achieve Coastal Act consistency in this respect, including identifying clear descriptions and parameters of what constitutes ESHA and wetlands to enable future determinations to be made in a consistent manner in conformance with Coastal Act criteria (e.g., modifications to Sections 3.7, 5.3.1 "Resource Protection," Figure 3.11, etc.), and ensuring that development properly accounts for such ESHA/wetlands including avoiding such resources and appropriately buffering them based on biological evaluation (e.g., modifications to Section 5.3.1 "Resource Protection"). As discussed elsewhere, it is not the Commission's intention, though, that any drainage facilities that may take on wetland characteristics in the future, be treated as wetlands in the same way as currently delineated wetland areas. Toward this end, the CLRDP provides as follows:

> *Implementation Measure 7.2.2 – Stormwater System Natural Features Maintenance. The wet ponds, vegetated filter strips, vegetated swales, and other natural drainage features to be created per the Drainage Concept Plan may exhibit wetland and/or habitat characteristics over*

time, but their primary function is for water quality filtration and treatment, flow control, and infiltration. As such, maintenance within them on a regular basis is expected and necessary in this respect, and is allowed per this CLRDP (see maintenance parameters in the Drainage Concept Plan).

The CLRDP Drainage Concept Plan (CLRDP Appendix B) then articulates a comprehensive maintenance program. Thus, it is contemplated that on-going management and maintenance of such areas would be allowed subject to the CLRDP Drainage Concept Plan provisions (see CLRDP Appendix B). Depending on their characteristics, though, mitigation measures may be required for design and construction of development adjacent to such areas (see modifications to Section 5.3). That said, although the Commission agrees that the treatment train facilities primary function is for water quality filtration and treatment, flow control, and infiltration, and the Commission concurs that maintenance within them is allowed subject to certain criteria (per the modified parameters; see Chapter 5 and Appendix B in Exhibit E), the Commission cannot certify a policy that purports to dictate to other federal and state resource agencies the manner in which they must implement their respective mandates (see, for example, Implementation Measure 3.2.7). Thus, modifications are included to delete such references to other resource agencies. In any case, such wet ponds are designed to be fairly self functioning without significant maintenance, other than to an established forebay within which regular maintenance is required. In other words, provided the ponds work as expected, the majority of them will be mostly left alone for many years at a time.

6. Raptor Use of Terrace

As described above, the terrace portion of the site is used by raptors as foraging habitat (see also CLRDP Sections 3.7 and Appendix A for detailed description of species and their use of the site in this respect). About 65 acres of the Campus site, or nearly two-thirds of the Campus, will remain as undeveloped natural habitat area. Although several raptor species (including California fully protected species and California Species of Special Concern) forage there, the Commission's staff ecologist has concluded that the terrace portion of the site should not be considered ESHA. Nevertheless, such foraging habitat is an important coastal resource and the Commission has followed CDFG's policy under CEQA of requiring that at least 0.5 acre of raptor foraging habitat be preserved for every acre of such habitat that is destroyed by development. In this case, nearly two-thirds of the Campus (well over the one-third minimum threshold that would apply using CDFG's methodology) would remain outside of development zones and continue to be available for foraging habitat use. CLRDP measures that commit the University to enhancing the grasslands, wetlands, and wildlife corridors of the terrace for habitat purposes will also increase the productivity of this remaining area for raptor and other species foraging. For these reasons, and based on the suite of modifications necessary overall, the CLRDP as modified can be found consistent with the habitat protection policies of the Coastal Act with respect to raptor use of the terrace.

7. California Red-Legged Frog

As described above, California red-legged frog (CRLF), a federally listed threatened species and a state

species of special concern, has been observed along the northernmost portion of the Campus boundary near the railroad tracks. The CLRDP's CRLF assessment concludes as follows:

> *There is a small transient or resident population (at least 1 individual) of non-reproductive CRLF at the site. The site is not within a designated CRLF Critical Habitat (USFWS 2001a). Potential CRLF habitats occur on the northern portion of the site and include described upland areas, temporary hydration points, a possible movement corridor, and aquatic foraging habitats for non-reproductive frogs. All freshwater habitats at the site are too ephemeral for successful CRLF reproduction or rearing. In addition, both the lower and upper reaches of Younger Lagoon are too saline to provide potential reproductive or other CRLF habitat. The lagoon is s saltwater barrier for CRLF. All potential CRLF habitats…are located in the north and western margins of the upland terrace portion of the site within either designated wetlands or the proposed wildlife corridor, which will not be developed with the proposed project. The purpose of the proposed wildlife corridor is to maintain both aquatic habitats and vegetation cover for animals dispersing between the YLR, the adjacent agricultural ponds, and Wilder State Park located west of the site and the lower end of the Moore Creek Watershed to the east of the site.*[43]

With the notable exception of the 3-acre Upper Terrace development zone, the majority of the northern portion of the terrace, and its western connection to YLR, will be maintained as a habitat resource with the CLRDP (see, for example, Figure 5.2 in Exhibit C). In addition, the areas north and south of the Upper Terrace zone will be designated as wildlife corridors, these corridors will be buffered, development adjacent to them designed to avoid wildlife impacts, and the corridors and buffer areas enhanced for continued wildlife movement, including for CRLF and other wildlife. The pond near the railroad tracks within which CRLF were observed at the Campus will also be enhanced in favor of CRLF habitat needs. All of these measures should help to protect any CRLF moving along the northern portion of the site.

That said, USFWS typically recommends a minimum 300-foot width for CRLF corridors, whereas the CLRDP wildlife corridor/buffer on the north of the site ranges from 125 feet to 200 feet (from the northwest corner to the northeast corner of the Upper Terrace development zone). USFWS has preliminarily indicated that the Service is concerned that the amount of development in the northern portion of the site, the width of the northern corridor, and the increased use of Shaffer Road may all be inappropriate for protecting CRLF. As of the date of this report, however, the Service's recommendations in this regard have not been finalized.[44] Were such concerns to be significant and warranted, it could argue for reducing the amount of development in the northern portion of the site,[45] increasing wildlife corridor widths, further decreasing Shaffer Road improvements, and/or some combination of all of these.

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[43] From "Final California Red-Legged Frog Assessment for the Proposed University of California Santa Cruz Marine Science Campus," EcoSystems West Consulting Group, July 2002.

[44] This remains one of the information gaps previously identified with respect to the CLRDP submittal overall.

[45] Including to what extent such development could be accommodated "off-Campus" and at nearby University owned lands such as the recently acquired 18-acre Texas Instruments site about a block from the Campus entrance on Delaware Avenue at the intersection of Natural Bridges Drive.

8. CLRDP Water Quality Provisions

The governing plan for hydrology and water quality on the Campus is the Drainage Concept Plan (proposed CLRDP Appendix B). As stated in the CLRDP:

> *The Drainage Concept Plan recognizes that stormwater and other runoff from the Marine Science Campus ultimately enters important natural resource areas on and adjacent to the site, including Younger Lagoon Reserve, terrace wetlands, and the Monterey Bay National Marine Sanctuary. Stormwater runoff is vital to the maintenance of habitat values in wet areas on Campus, but with development of the site there is also potential for harm caused by increased energy flows, altered flow regimes, and urban pollutants.*
>
> *Overall, the implementation of the Drainage Concept Plan should be a significant improvement over the existing (at the time of CLRDP certification) drainage system for the Marine Science Campus. First, the plan calls for the correction of various then existing drainage deficiencies on the Marine Science Campus (e.g., the deposition of eroded soil caused by historical erosion problems on the bluffs of Younger Lagoon Reserve adjacent to the NOAA inholding) early in the implementation of this CLRDP.*
>
> *Second, the plan protects sensitive habitat areas from the effects of future development by using a combination of natural drainage systems and engineered filtration systems. The natural systems, which are referred to as Best Management Practices (or BMPs) will be used in series, where possible, connecting vegetated filter strips to grassy swales that are in turn connected to stormwater ponds. Each of these mechanisms serves to filter and treat stormwater and other runoff so the quality of water leaving the system should be of relatively high quality. In addition to providing a high level of water quality, these natural systems will augment groundwater supplies by providing ample opportunities for groundwater recharge. Natural systems will be supplemented with engineered filtration system BMPs that will be used in parking lot and other vehicular use areas, and in maintenance/laydown areas, to ensure cleansing of runoff prior to it entering the natural systems in series, including ultimately the stormwater ponds. The "in ground" natural and engineered treatment and filtration systems will also be supplemented by source control (such as a Campus-wide stormwater educational program, use of less polluting materials, etc.) and operational BMPs (such as regular maintenance, street sweeping/vacuuming, etc.). Thus, the Drainage Concept Plan represents a state of the art "treatment train" BMP approach that is both sensitive to the site design aesthetic and designed to produce the highest possible quality of site runoff possible.*

In general, the CLRDP Drainage Concept Plan (DCP) represents a state of the water quality art effort to address the effects of pollutants in drainage and runoff. In large measure, the Plan succeeds. It is expected that its implementation will result in enhanced water quality. That said, there are a series of issues with the Drainage Concept Plan and by extension the related water quality sections within the body of the CLRDP that affect consistency with the Coastal Act (including Section 5.7, Hydrology and Water Quality, Section 5.2, Land Use, and Section 5.3 Natural Resource Protection). Some of these are merely clarifications, but others (like required water quality standards, monitoring, maintenance,

reporting, locational criteria, species composition, timing, etc.) are more significant deficiencies that affect the ability of the DCP (and by extension the CLRDP) to effectively protect hydrology and water quality consistent with the Act. Modifications are suggested to correct these deficiencies (see, for example, changes to Appendix B in Exhibit E). Major suggested modifications would specifically achieve the following: ensuring that drainage features are appropriately sited to maintain as much open space/habitat areas free of created wet ponds (in Chapter 5 and Appendix B); ensuring that drainage improvements are constructed in a timely manner (e.g., modifications to Figure 9.5); providing water quality education to all Campus users and visitors (e.g., modification to Appendix B); ensuring that hydrophytic vegetation is included as a means of biological treatment of runoff (e.g., modification to Appendix B); and ensuring adequate annual monitoring and maintenance, including an annual water quality report (e.g., modification to Appendix B). The CLRDP contemplates a significant amount of intensive development, on a relatively undeveloped site. Impacts to existing drainage and water quality will be significant without a comprehensive water quality program. Although mostly adequate, the suggested modifications are necessary to assure protection of water quality consistent with the Coastal Act .

9. Relationship of Younger Lagoon Reserve Management Plan to CLRDP

A specific YLR Management Plan (YLRMP) is not part of the proposed CLRDP, which has the following implications. First, because this decision to not incorporate YLRMP was made late in the CLRDP preparation process, there remains some proposed CLRDP text that doesn't accurately reflect the relationship of the YLRMP to the CLRDP. Related to this issue, there is some other text that attempts to describe the way the YLRMP could relate to the CLRDP were it not to be a part of the CLRDP (as turns out to be the case). Second, the RMP contains fairly detailed provisions for the protection, enhancement, restoration, and management of the terrace resources (outside of development zones), but it does not include complementary provisions for YLR.[46] In some ways this makes the RMP unbalanced inasmuch as the RMP is mostly silent with respect to protection and enhancement of YLR, an area that could be considered the primary habitat area of the Campus.

With respect to the relationship of the YLRMP to the CLRDP, modifications are suggested to ensure it is clear that the YLRMP has no particular CLRDP or other Coastal Act status (e.g., see modifications to Section 5.3.1, the RMP, etc.). The YLRMP has not been submitted, reviewed, analyzed, or approved in any way by the Commission. It is the Commission's understanding that NRS is currently updating the YLRMP, and it is possible that this document may be proposed as an amendment to the CLRDP in the future. At this time, however, it is not a part of the CLRDP and cannot be used as the CLRDP standard of review for any development proposed in or adjacent to YLR.

With respect to the lack of RMP provisions specific to YLR, this is not a Coastal Act consistency flaw per se: the CLRDP protects YLR regardless of whether the YLRMP is part of it or not. While it would be preferable if the CLRDP included a similar level of detail with respect to YLR management as the CLRDP provides through the RMP for terrace habitat management, it is not absolutely required for

[46] Notwithstanding this RMP omission, there do remain, in both the case of YLR and terrace resources, substantial resource protection direction in CLRDP Chapter 5 and elsewhere.

Coastal Act consistency. Rather, it means that YLR, though it will be left alone (other than access to the sandy beach portion of it – see also above) and protected as a Resource Protection Area, will not be the subject of any active resource management within it per the CLRDP RMP. This means that the University may need to approach YLR management (including funding for enhancement and other measures emanating from it) outside of the CLRDP development project and resource management framework. Although this somewhat artificially separates YLR from the Campus at one level, particularly with respect to potential funding sources for YLR enhancement and management measures, this is how the University has chosen to frame this relationship and the Commission sees no compelling reason to undo that. The Commission does note, however, that it would make sense for an updated YLRMP to be either amended into the CLRDP in whole or in part (e.g., encapsulated in its own RMP section), including similar levels of detail for measures to be implemented over time to protect, enhance, restore, and manage its resources through the CLRDP. Such integration would appear to better serve YLR resources over the long run, including the manner in which they relate to terrace habitats, and provide a context for the funding of such efforts. The Commission further notes, however, that any such proposed CLRDP amendment would need to be developed so that it was consistent with, and integrated seamlessly into, the certified CLRDP – particularly with respect to beach access.

10. Development Adjacent to YLR

The CLRDP building program allows for substantial development within the three development nodes. With respect to YLR, the Middle and Lower Terrace zones are immediately adjacent to the Reserve, and such development needs to be understood in that context. Although the CLRDP includes significant siting and design criteria for avoiding conflicts with habitat resources of the Reserve, it is missing more specific criteria at the Reserve/terrace interface. This is partially a result of the fact that the illustrative buildout site plan of the CLRDP (i.e., Figure 7.2) was originally understood to be more of an actual locational site plan, and it was originally evaluated and presented as such within the CLRDP. Thus, this site plan showed specific locations for development at buildout (subject to some flexibility for changing the precise locations), and it was thought that the CLRDP was premised on this concept. In the University's revised August submittal, however, the University clarified that Figure 7.2 was intended as an example of how the Campus might buildout, and not an actual representation of how the Campus necessarily would build out. Thus, for purposes of Coastal Act review, the three development zones should be understood as providing a relatively blank locational slate for future development, as opposed to areas within which precise building and other development locations, beyond the specific land use designations, allowed uses, and some design and scale constraints, were provided. This approach, though, requires that the CLRDP include fairly specific, complementary policies that could ensure that development was sited appropriately in relation to specific site constraints, including the YLR/terrace interface.[47] The CLRDP does not include adequate protection for the Lagoon and associated wet resources in this respect. The siting and design criteria as proposed are simply too broad by themselves to ensure that the appropriate intensity of development and use occurs adjacent to YLR. This is particularly critical in the Middle Terrace development zone in the area overlooking the Lagoon (between McAllister Way the CDFG facility and YLR) that is currently occupied by the unpermitted

[47] Note that this issue also significantly overlaps with public viewshed issues, and is also discussed in those findings that follow.

storage yard and greenhouses (see photos in Exhibit A).[48] As the Commission indicated in its Issue Identification comments regarding this area in December 2000:

> *The Commission notes that each alternative proposes a large "storage-maintenance lay-down yard" atop a western bluff overlooking Younger Lagoon. This area does not appear to be appropriate for the mass, scale and intensity of use shown in each of the proposed alternatives. In fact, this is an area on the site that might best be considered for exclusive habitat protection purposes, including the potential for restoration as upland habitat. Furthermore, it is unclear from the plans what, if any, buffers are proposed here. Appropriate buffers between Younger Lagoon and any proposed development are critical for its continued protection, and the forthcoming draft [C]LRDP and CEQA document should address this.*

It would be preferable biologically if this area were left undeveloped and restored as functional habitat and buffer, as identified as a potential outcome for this area in the Commission's comment above. However, to do so would remove about 3 acres of developable area from the Middle Terrace development zone, and further confine the University in terms of the level of Campus buildout. It is possible that this area would have been treated differently and evaluated for its habitat potential (and potentially identified as habitat and/or buffer) had the greenhouses and storage yard not been present, but the fact that there were present precluded any such analysis in that respect. As such, its habitat potential is somewhat unknown. That said, it is clear that this area is directly adjacent and overlooking the Lagoon, lacking a berm as is present in the Lower Terrace area, and it cannot be allowed to be addressed in the same manner as further removed areas east of McAllister Way as is proposed.

In a larger sense the entire area west of McAllister Road in the Middle Terrace zone, an area that includes the CDFG and related Avian facility, would not be the preferred alternative for development on the Campus had the Campus site been at its current size and configuration when these developments were proposed. On the contrary, had the University owned all of the Campus site prior to development being propped in this area west of McAllister Way, it would probably be the least preferable portion of the terrace within the current Campus boundaries for development (except for delineated wetland areas). But, the University only owned the area west of McAllister Way when that development was proposed, and thus options for siting additional marine research development were extremely limited. That is no longer the case, but the fact that the CDFG facility exists in this area must now be taken into account.[49] A similar situation exists for the Lower Terrace, where the initial Long Marine Lab facilities were constructed adjacent to the YLR on the only property that the University owned in the area at that time.

As opposed to restoring this entire upper area west of McAllister to wetland upland and buffer, the Commission chooses to strike a balance between the competing priorities of habitat restoration/protection and marine research development, and to allow some additional limited marine research development in this area to complement the CDFG and marine lab facilities. Such

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[48] Ibid.

[49] In this sense it is noted that the temporary greenhouses (that were supposed to have been removed by now), the unpermitted storage yard, and the temporary office trailers and parking/activity area associated with the Avian facility do not need to be taken into account in the same way as CDFG's permanent major facility.

development, however, must be low intensity and clustered to the east, must be limited in height in the area nearest the delineated Lagoon and associated stream/riparian resource of its eastern arm. In identifying this lower intensity area west of McAllister, the Commission further distinguishes that the area within 300 feet of these wet resources requires additional protection,[50] and development in that area must to be limited to 12 feet in height to protect YLR (including to ensure effective implementation of related CLRDP criteria) and the public viewshed.[51] See suggested modifications to Chapter 5, including Section 4.2, and the new height figure to be added to the CLRDP in this respect (see end of Exhibit E). It is noted that the area of the 12-foot height limit is less than 300 feet from YLR wet resources in portions of areas adjacent to the CDFG facility. This is to accommodate the proposed developed core of the Campus and is part of the balance being struck by the Commission for this area.

With respect to the Lower Terrace area, although the 12-foot berm effectively buffers YLR in many respects, new development should also be located away from YLR as much as possible. The noted new height figure to be added to the CLRDP, pursuant to a suggested modification, clusters development within the core of the zone (see Exhibit E). Beyond siting, in order to ensure that new development close to YLR not result in impacts to YLR resources (notwithstanding the berm) areas of activities associated with development must not be visible from within YLR. Towards this end, modifications are included to ensure that windows and other areas where movement may be seen are not visible from within YLR. This approach is consistent with the Commission's recent practice with respect to development at LML that has been required to demonstrate that such movement areas will not be visible from Reserve habitat receptors.[52] Such a standard does not mean that buildings themselves cannot be visible from within the Reserve, rather that windows and other movement areas associated with development cannot be visible. Inanimate portions of buildings (e.g., roofs) could be visible, provided they met all other CLRDP criteria.

11. Development Adjacent to Other Habitats

The same CLRDP issue applicable to YLR and its resources (related to the lack of clarity regarding development zone intensity at the YLR/development zone interface) also applies to the terrace habitats where they intersect development zones. In both Middle Terrace and Lower Terrace cases, development intensity nearest the terrace wetlands is best kept low to protect these resources, and modifications are included to require lesser intensity development adjacent to wetland buffers (see, for example, lower building heights and reduced intensity allowed pursuant to the new height figure and related implementation measures applicable to the eastern edges of the Middle and Lower Terrace development zones). For that portion of the Lower Terrace development zone located east of the Marine Discovery Center and seaward of Wetland W5 (see, for example, Figures 5.2 and 7.2), development is not

[50] The Commission's staff ecologist indicates that the area within 300 feet of these resources is the area in which special requirements for buffering these resources are appropriate and necessary. Were this area to be restored to habitat, it is this 300 foot buffer area at a minimum that would need to be restored in that sense.

[51] Such required modifications are also related to public viewshed requirements, and thus also discussed and supported in those findings.

[52] Most recently with the Center for Ocean Health project.

appropriate at all.[53] In all cases, such modifications, like those associated with development along YLR, overlap significantly with protecting the public viewshed as well (see also public viewshed findings).

Furthermore, modifications are also suggested to ensure that residential development would be confined to the area nearest the Campus entrance between the realigned Campus Road and Wetland W4 and its buffer area (i.e., in the location shown on Figure 7.2). This location clusters residential development as close to urban and residential Santa Cruz as possible (as near to De Anza MHP within the zone as possible), thus reserving areas within the Campus core and nearer the ocean for relatively higher priority development, and avoiding residential development in the Upper Terrace where residential noise, lights, and bustle of activity would negatively impact the wildlife corridors along the north and south boundaries of the zone.

Finally, the uppermost portion of the Middle Terrace zone north of CDFG is within a particularly sensitive portion of the zone. In this area, the existing Campus access road is to be reconfigured to the south (see Figures 5.4 and 7.2),[54] the old campus access road is to be abandoned, and this area is to be restored with a trail and habitat enhancements (between CDFG and the intersection of Delaware Avenue and Shaffer Road), including enhanced wildlife connectivity from and to YLR. As such, this area on the northern margin of the Middle Terrace zone is a sensitive location from a habitat perspective (as well as in relation to public views when entering the site and along the public trails – see also public viewshed finding). It could reasonably be argued that the area north of CDFG should be removed from the development zone altogether and designated a habitat area (i.e., resource protection buffer, wildlife corridor, open space, etc.), and/or that the road and path area be completely restored as functioning habitat/buffer within which trail activity would be precluded. In this case, however, the Commission finds that it is better to strike a balance that recognizes that the other modifications described will lessen CLRDP building program development intensity in various ways, and that this area may be kept in the development zone to provide the University with development siting flexibility. Similarly, allowing for the path use allows for maximum public access, including potential future connections to off site areas. However, because the area is sensitive, it is only appropriate for very low intensity development that might benefit from a more isolated location (see modifications to Section 5.4).

12. YLR and Wetland Buffers Between Middle and Lower Terraces

The areas designated as "Resource Protection Buffer" between the Middle and Lower Terrace development zones along McAllister Way are inappropriately truncated. This seems to emanate from the presence of McAllister Way, and the fact that an informal parking area has sprung up in this area on the

[53] This area is currently undeveloped grassland that is located along the shoreline edge of the Campus between two designated Resource Protection Buffers and is part of the undeveloped shoreline portion of the Campus extending between the Discovery Center and De Anza MHP. As the Commission previously found regarding this area in 1999: "It is unlikely that additional development should or could take place seaward of Wetland [W5] as lands not committed to the LML campus and the Discovery Center are constrained by the presence of the wetland and the coastal bluff." See also public viewshed and coastal hazard findings.

[54] Unlike other site plan location figures, the location of the Campus road is fixed per the CLRDP (as articulated in Section 5.5.1). As a result, it is known that the road location on Figures 5.4 and 7.2 is where the realigned roadway will be located per the CLRDP.

west side of McAllister Way.[55] This area is designated as "Open Space" by the CLRDP (see Figure 5.2).

In terms of the road, the existing road has long bisected this area. The new Campus access road would likewise be located along this same alignment and in the same configuration. Given that alternative road alignments through to the Lower Terrace would lead to additional habitat and other resource impacts if the road were to be moved to the east, it is appropriate to maintain this road footprint and keep this road area in the "Open Space" designation (that allows for such roads).

In terms of the areas on either side of the road, however, the "Open Space" designation is inappropriate given the location relative to Wetland W5 and YLR. The areas on either side of the road in this area are located inside of an area within 100 feet of both Wetland W5 and YLR, and within 150 feet of W5. The 100-foot YLR buffer in this area is minimal, and its utility depends on the presence of the earthen berm. Similarly, this area is within 300 feet of Younger Lagoon itself, where 300 feet has been deemed the appropriate setback from this wetland by the Commission's staff ecologist. The Commission's ecologist (and the CLRDP) also designate 150 feet as the appropriate setback from Wetland W5. In order to protect these habitat resources, modifications are included to designate the area on either side of McAllister between the Lower and Middle Terrace development zones as Resource Protection Buffer (e.g., including modifications to Sections 2.3, 5.2, 5.5, 5.6, 6.3, and 7.1).[56]

13. Wildlife Corridors

The CLRDP makes a distinction between wildlife corridors and their buffers, going so far as to delineate the area that is designated "Wildlife Corridor" at 20 feet in width, and then adding variable width buffers to that and designating these variable widths as "Resource Protection Buffer" (see, for example, Figure 5.2). Although the University has made a distinction between "Wildlife Corridor" and "Buffer," it is the Commission staff ecologist's opinion that they are functionally equivalent and should be treated as a single unit for management purposes. The Commission concurs, and although the CLRDP mostly accounts for this, there are a series of places throughout the document where this concept needs to be reinforced so that the buffers areas are not somehow given less protection in this sense (see, for example, modifications to CLRDP Appendix A).

Given existing wildlife resource conditions, the University appropriately is proposing to formally establish a "wildlife corridor" designation in the CLRDP. Minor modifications are needed, though, to correctly characterize the biological evidence that the northern portion of the site has been used as a movement corridor for wildlife for some time.[57]

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[55] This parking area is identified as existing in the CLRDP (see Section 2.3 and Figure 2.26), however it has never been formally recognized by the Commission.

[56] See also viewshed findings.

[57] For example, CRLF have been observed on the site near the railroad tracks. Pursuant to the University's biological reports, the pond there (and wet areas elsewhere on the site) do not appear to contain reproductive habitat, only transient habitat, for CRLF (e.g., EcoSystems West, 2002)). As a result, those CRLF had to have traveled to the pond from off-site along some corridor. Known CRLF habitats exist both east and west of the site, and CRLF are known to move in straight lines between such locations (such as along the railroad track berm). EcoSystems West concluded that "CRLF are most likely to move onto or across the site along the northern margin

In sum, though, the CLRDP at least partially offsets its building program by enhancing such wildlife corridor and buffer areas in the northern portion of the site, including that surrounding the Upper Terrace development zone and across Shaffer Road to promote wildlife movement, and including measures to promote CRLF habitat in the pool nearest the railroad tracks specifically.[58]

14. Shaffer Road

Shaffer Road adjacent to the Campus is a narrow paved road section that ends at the railroad track right-of-way at the northwestern corner of the Campus. On the opposite side of the railroad tracks, Shaffer Road begins again and extends a short ways to Highway One. In other words, Shaffer Road is bisected by the railroad right-of-way and the raised tracks located in it. Shaffer Road is also outside of the Campus boundaries and not explicitly covered by the CLRDP. The road remains part of the aforementioned area of deferred LCP certification that extends to Antonelli Pond to the east. Per the CLRDP, improvements to Shaffer Road would be limited to intersection improvements at the Campus entrance (at the Shaffer Road/Delaware Avenue Intersection) in order to improve its function and safety, to improvements to that portion of it extending from the intersection to the entrance to the Upper Terrace development zone, and to improvements to facilitate wildlife movements across Shaffer Road (see CLRDP Section 5.5).

The ultimate disposition of that portion of Shaffer Road north of the entrance to the Upper Terrace development zone has raised some issues during the preparation of the CLRDP. There are three related primary issues: (1) whether Shaffer Road should ultimately be connected from one side of the railroad right-of-way to the other; (2) the extent of modifications necessary to Shaffer Road to accommodate wildlife movement across the road area; and (3) ensuring that habitat corridors on one side of Shaffer line up with habitat corridors on the other side of Shaffer. On the latter, the Commission is aware that the owner of the other portion of deferred certification located between Shaffer and Antonelli Pond has long been pursuing a residential development project. Although it is not clear at this time what, if any, improvements to Shaffer Road may be required for such a project, or even whether such a project could be found consistent with the Coastal Act, preliminary biologic review indicates that this adjacent

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of the property. It is reasonably likely that the temporary aquatic environment along the northern margin provides either foraging or dispersal habitat for a limited number of frogs." Thus, by definition, a wildlife corridor has existed at the least for CRLF. More broadly, the site has been well studied during the course of previous development proposals here, and these studies serve to confirm that the northern portion of the site, at the least, is part of a wildlife movement area between the Moore Creek/Antonelli Pond system to the east and Wilder Creek and Lagoon to the west. EcoSystems West's CRLF reports (July and August 2002) indicate that "movement onto or across the site is most likely to occur at or along the northern margin of the property," and indicates that the purpose of the proposed designated wildlife corridor is to "**maintain** both aquatic habitats and vegetative cover for animals dispersing between the YLR, the adjacent agricultural ponds, and Wilder State Park located west of the site and the lower end of the Moore Creek Watershed to the east of the site" (emphasis added). Previous biologic reports have similarly concluded (including Mori (1997) and the Habitat Restoration Group (1993 and 1994)) that the northern portion of the site is an important movement corridor, perhaps summed up best as follows: "The Terrace Point site forms an important undeveloped connection between the riparian and wetland habitats of the YLNR and Antonelli Pond, with Antonelli Pond in turn providing a critical habitat link to inland areas in the Moore Creek watershed….Field observations have repeatedly demonstrated that wildlife species using the YLNR and Antonelli Pond also utilize the Terrace Point site, with movement between sites occurring regularly for some species groups (e.g., amphibians, raptors, and waterbirds)." (Biotic Assessment, Terrace Point Specific Plan, The Habitat Restoration Group, March 1994).

[58] Again, USFWS has not finalized their recommendations for this site regarding such wildlife corridors, and in particular recommendations relative to proposed development in the northern portion of the site specifically (see also previous CRLF finding).

property contains wetland and wildlife movement and habitat areas that roughly match up to similar areas on the Campus. The CLRDP also contains provisions to ensure that this is the case (see CLRDP Policy 5.1 et seq).

With respect to the extent of improvements and the potential connection of the road across the railroad tracks, the City of Santa Cruz has indicated that it would prefer that Shaffer Road were connected from one side of the railroad right-of-way to the other. Because Shaffer Road is outside of the Campus boundaries, such issues can only be partially addressed in the CLRDP, and the City has indicated that it may pursue an LCP amendment to certify at least Shaffer Road.

As the University and CLRDP indicate, Campus development does not require Shaffer Road to be extended north across the railroad tracks The Commission notes that Shaffer Road appears to be used for wildlife traveling from the upper portion of the Campus site to Antonelli Pond/Moore Creek (see also previous finding). Given that Campus development will funnel such wildlife movement to either side of the Upper Terrace zone, and given that increased use of Shaffer (for access to the Upper Terrace) will make it more difficult for wildlife to safely traverse the road, it is appropriate that the CLRDP include provisions to limit Shaffer Road improvements to that necessary to serve Campus development and to include in such improvements offsetting wildlife movement improvements. The proposed CLRDP provisions are mostly adequate in this respect, but modifications are included to refine criteria and requirements. Foremost among these are modifications to ensure that it is clear that only the minimum road improvements to serve Campus development are provided for by the CLRDP. In other words, the road is not to be expanded unless improvements to it are guided by the demand placed on it by development. In this sense it is expected that Shaffer Road will not be made larger, and that it can function as road section akin to a long driveway or entrance road to the Upper Terrace.

Inherent in improvements to Shaffer Road per the CLRDP is to include adequate habitat corridor connectivity enhancements. The CLRDP also references the potential for the abandonment of the paved roadway section between the Upper Terrace entrance and the railroad track and reconfiguration of this road area as a habitat corridor (i.e., removing pavement and grading/vegetating for habitat movement). On the latter, the Commission notes that a future CDP and/or LCP amendment package will need to address this area as it is outside of the Campus boundaries. That said, the Commission further notes that based on the available information at this time, this portion of Shaffer Road appears best suited to be left disconnected from the road section inland of the railroad tracks, and reconfigured and enhanced for habitat corridor functions. Reasons supporting this at this time include that: the habitat corridor here is an important piece of a patchwork of remaining habitat areas in the vicinity of the Campus (including Moore Creek Preserve and Antonelli Pond, and habitat areas at Wilder Ranch State Park), including for CRLF, and protecting and enhancing it, particularly in the context of the amount of Campus development contemplated through the CLRDP, is important; this area, if provided for habitat movement and not road purposes, will better allow the Campus to function as an important transition area between urban and rural uses (as previously discussed in the land use findings) as it helps to provide a clearer physical separation from urban uses (as opposed to an expanded and connected road that would serve to “connect” the Campus more fully to the urban portion, and bring more related urban activity to the Campus-urban interface, as well as to the inland portion of Shaffer Road where similar

boundary issues exist); the County is in negotiations to acquire the railroad corridor and install a pedestrian recreational trail within it, and such a trail, particularly where it transitions to the rural north coast, is enhanced to the degree it is not bisected by road crossings; new road crossings of railroad tracks are typically opposed by railroad operators due to the increased potential for conflicts between rail and road users; road crossings of raised rail sections often become an attractive nuisance for persons attempting to use the crossing as a ramp to launch their vehicles airborne (leading to increased conflicts, as well as public safety concerns overall, and increased potential for wildlife impacts); and it does not appear necessary to serve development.

15. Other Habitat Issues

In addition to the issues detailed above, modifications are also suggested that would achieve the following: ensuring that allowed uses within areas in which ESHAs occur, generally designated as "Resource Protection," are only those dependent on and compatible with resource protection (e.g., modification to Section 5.2.2 "Resource Protection;" Implementation Measure 7.1.13); ensuring that sensitive habitat aspects of drainage facilities are allowed to emerge and are protected, while still allowing the drainage systems to function (e.g., modification to Implementation Measure 3.2.7; Appendix A); ensuring that wildlife is not adversely impacted, even when outside a defined ESHA (e.g., modification to Policy 4.3); ensuring that lighting does not adversely impact buffers (Section 6.6.2); ensuring that runoff into the marine environment maintains, enhances, and where feasible restores marine resources as directed by the Act (e.g., modification to Implementation Measure 3.1.2); preserving a wildlife corridor between Younger Lagoon and Antonelli Pond/Moore Creek habitats by not prematurely endorsing roadway improvement (e.g., modification to Implementation Measure 5.1.3) and by consistent complete mapping (e.g., modification to Figures 4.19 and 4.21); and limiting fencing that adversely impacts wildlife (e.g., modification to Section 6.8.1).

16. Resource Management Plan

The CLRDP Resource Management Plan (RMP) (see proposed CLRDP Appendix A) includes a description of existing Campus habitat resources, and measures to enhance and manage them over time. Although the RMP should mostly protect habitat resources consistent with the Act, a series of modifications are necessary to ensure that that is the case over the long run. These include the modifications discussed above, as well as modifications designed to ensure its effective implementation over time, including factual corrections (see Appendix A in Exhibit E). In particular, modifications are included to provide for more appropriate native plant cover standards, including requiring evidence of natural recruitment in planted areas, to ensure that habitat enhancement and management measures proceed from a well articulated plan, and to provide for an annual monitoring report.

With respect to the need for clear plans from which to initiate habitat enhancement and management, the RMP introduction states as follows:

> *The RMP is primarily intended as a guide to the management of the site rather than an explicit implementation document for specific projects per se. Its main purpose is to provide overall management goals and guidelines, which can then be used to develop specific proposals for*

implementing RMP recommendations and requirements through individual projects (e.g., project specific planting plans, restoration plans, etc.). Of course, it is possible that the RMP itself may become the implementation vehicle for a series of management measures and/or projects approved at one time (see also Implementation section of this RMP below). In such a case, the more general parameters of the RMP would need to be elaborated on and made more explicit in the same manner as would be necessary for implementing individual projects; this refinement simply being on a larger scale when looking at the RMP as a whole. In regards to RMP performance standards specifically, the intent of this RMP is that the performance standards be made more specific and detailed at the time of further plan development and project approval. It is possible and expected that such elaborated performance standards will differ from RMP performance standards to the extent necessary to be consistent with professional restoration/revegetation standards, and to provide for the best possible resource outcome

This construct, where the RMP will be elaborated upon in terms of future plan development specific to particular areas and projects, is sound and typical of planning documents that cannot presume to know the specific biological circumstances associated with future projects. That said, the RMP is missing a corresponding articulation of what such plans need to include. The effect of this omission is intensified by the overall limited specificity in the RMP performance standards. Without such specific parameters, the Commission is concerned that future habitat enhancement and management may not prove successful and, by extension, the ability of these measures to protect habitat and to offset CLRDP development impacts either reduced or negated. In order to be assured that such plan development will include rigorous biologically-based information describing how projects will proceed and be measured, it is critical that criteria be established. Modifications are suggested to define such parameters, and these modifications are consistent with the types of information that the Commission typically requires with such plans (see modifications to the implementation section of the RMP).

With respect to the need for reporting, the RMP and the University's commitments pursuant to it are largely structured on a yearly basis (see, for example, RMP Table A-13). In fact, the RMP specifies that authorizations shall be required on a yearly basis partially in response to this construct to ensure that the requirements of the RMP match the yearly time frame – and to ensure that they actually occur (see subsection 2 of the RMP implementation section, "CLRDP Approvals Required"). It is critical that such efforts be monitored. Monitoring will help to develop the fact set for understanding the effectiveness of the RMP (and the CLRDP), and whether changes to it are appropriate and warranted. In addition, such monitoring is critical for identifying any modifications to ongoing resource management projects that may be necessary in order to achieve CLRDP objectives and/or to meet CLRDP requirements, including those of the RMP. As such, it is a critical tool for the University and other interested parties. In order to facilitate the Commission's access to such monitoring information, particularly so that the Commission can effectively make use of that information with respect to ongoing development project review as well as any CLRDP amendment reviews, modifications are included to ensure that the University provides an annual resource management report (see new subsection 4 of the RMP implementation section). This reporting text is structured as an annual report so as to most effectively be coordinated with other annual monitoring reports pursuant to this CLRDP (including the overall CLRDP and development project review reports of Section 8.8, and the water quality monitoring reports associated with Appendix B).

D. ESHA, Wetlands, and Associated Habitat Resources Conclusion

Overall, the CLRDP takes seriously the Coastal Act mandate to protect ESHA, wetlands, and associated habitat resources. Resources are avoided and buffered, and siting and design criteria are applied to ensure habitat resources are not adversely affected. In addition, water quality should be enhanced through implementation of the DCP. Nevertheless, there are a series of CLRDP modifications that are necessary for the Commission to be able to find the proposed CLRDP consistent with the Coastal Act policies cited above, as well as Section 30250 concerning coastal resources generally, with respect to such habitat resources (see suggested modifications, including those in Exhibit E). Some of these are habitat specific, others to locations, yet others involve land use provisions or how the CLRDP functions as a whole. In all cases, related and overlapping modifications required to find habitat consistency are found throughout the CLRDP, including modifications related to land use, public access, and public viewsheds, and modifications designed to ensure that the CLRDP as a whole functions correctly in order to ensure that the CLRDP's habitat provisions are fully implemented (see suggested modifications, including those in Exhibit E). In conclusion, if so modified in all of the ways outlined here according to the cited modification texts, then the CLRDP as modified, is certified as being consistent with the ESHA, wetlands, and associated habitat resource provisions of the Coastal Act.

3. Public Access and Recreation

This section details public access and recreation issues. Public access to the sandy beach area of YLR vis-à-vis ESHA concerns are also discussed in the previous section.

A. Applicable Policies

Coastal Act Sections 30210 through 30214 and 30220 through 30224 specifically protect public access and recreation. In particular:

> ***Section 30210.*** *In carrying out the requirement of Section 4 of Article X of the California Constitution, maximum access, which shall be conspicuously posted, and recreational opportunities shall be provided for all the people consistent with public safety needs and the need to protect public rights, rights of private property owners, and natural resource areas from overuse.*
>
> ***Section 30211.*** *Development shall not interfere with the public's right of access to the sea where acquired through use or legislative authorization, including, but not limited to, the use of dry sand and rocky coastal beaches to the first line of terrestrial vegetation.*
>
> ***Section 30212(a).*** *Public access from the nearest public roadway to the shoreline and along the coast shall be provided in new development projects except where:*
>
> *(1) it is inconsistent with public safety, military security needs, or the protection of fragile coastal resources,*
>
> *(2) adequate access exists nearby, or,*

(3) agriculture would be adversely affected. Dedicated accessway shall not be required to be opened to public use until a public agency or private association agrees to accept responsibility for maintenance and liability of the accessway.

Section 30212.5. *Wherever appropriate and feasible, public facilities, including parking areas or facilities, shall be distributed throughout an area so as to mitigate against the impacts, social and otherwise, of overcrowding or overuse by the public of any single area.*

Section 30213. *Lower cost visitor and recreational facilities shall be protected, encouraged, and, where feasible, provided. Developments providing public recreational opportunities are preferred. …*

Section 30214(a). *The public access policies of this article shall be implemented in a manner that takes into account the need to regulate the time, place, and manner of public access depending on the facts and circumstances in each case including, but not limited to, the following:*

(1) Topographic and geologic site characteristics.

(2) The capacity of the site to sustain use and at what level of intensity.

(3) The appropriateness of limiting public access to the right to pass and repass depending on such factors as the fragility of the natural resources in the area and the proximity of the access area to adjacent residential uses.

(4) The need to provide for the management of access areas so as to protect the privacy of adjacent property owners and to protect the aesthetic values of the area by providing for the collection of litter.

Section 30220. *Coastal areas suited for water-oriented recreational activities that cannot readily be provided at inland water areas shall be protected for such uses.*

Section 30221. *Oceanfront land suitable for recreational use shall be protected for recreational use and development unless present and foreseeable future demand for public or commercial recreational activities that could be accommodated on the property is already adequately provided for in the area.*

Section 30222.5. *Ocean front land that is suitable for coastal dependent aquaculture shall be protected for that use, and proposals for aquaculture facilities located on those sites shall be given priority, except over other coastal dependent developments or uses.*

Section 30223. *Upland areas necessary to support coastal recreational uses shall be reserved for such uses, where feasible.*

Coastal Act Section 30240(b), previously cited, also protects parks and recreation areas. Section 30240(b) states, in applicable part:

Section 30240(b). *Development in areas adjacent to … parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas, and shall be compatible with the continuance of those … recreation areas.*

B. Applicable Provisions of Proposed CLRDP[59]

In addition to developed University programs that provide a public access function (such as the Marine Discovery Center), the CLRDP provides for general public access to the site and surrounding area during daylight hours. Such access is primarily by means of a public path system that loops and connects around the site, and a series of overlook areas built along the pathways that provide areas for viewing coastal resources (like Younger Lagoon and the Pacific Ocean). Access areas, including paths, are designated as either controlled (where only supervised access is allowed) or public (where supervision is not required). Controlled access areas include all areas designated natural habitat resource areas (as described previously) as well as almost all Campus development areas located west of McAllister Way. The CLRDP also provides for designated public access-only parking areas (a total of 30 spaces, 15 of which would be metered) and designated dual use parking areas (for general access and Discovery Center access – a total of 50 spaces), and unrestricted parking within Campus parking areas on weekends and holidays.

C. Coastal Act Consistency Analysis

1. Public Access Historic Context

Historically, public access to and along the Campus site, including access to Younger Lagoon and its sandy beach, occurred on an informal basis. Prior to and during the early years of University partial site ownership in the mid 1970s, there were no overt restrictions on public access. The public generally accessed the site from the Shaffer Road/Delaware Avenue intersection and from the railroad tracks before making their way along well-worn paths and farm roads on the site to the bluffs and to the beach. The Younger Lagoon beach area in particular was quite popular, particularly with UCSC students, at least partially due to the fact that it was the first remote-type beach as one ventured north from urbanized Santa Cruz. Similarly, the surf break offshore was popular, particularly during larger swells. Paths to the beach are evident in time series in all air photos going back to before the Coastal Act (see Exhibit B).

In 1981, the Coastal Commission allowed the University to limit general public access to Younger Lagoon and its beach in favor of University-controlled access, including docent-led access to the overlook behind the main LML buildings. This decision was partially due to the nature of the resources present there, partially because the University indicated that it would be pursuing research studies within this area that would provide information directly relevant to the Commission for making coastal development decisions elsewhere, partially because the University committed to developing additional Lagoon overlooks, and partially because the Commission would continue to re-evaluate the general access closure on a regular basis to ensure that the access closure and associated trade-offs were

[59] See primarily CLRDP Sections 5.5 and 5.6, including Figure 5.5, and Chapters 6 and 9.

justified in light of the requirements of Coastal Act to maximize public access to and along the shoreline.

Re-evaluation of the appropriateness of a public access closure, though, did not occur until twenty years later when in 2001 the Commission reexamined the closure. Notwithstanding the closure, and as noted by the Commission at that time, some unsupervised access to the beach and the surf break offshore had continued during the course of the time that the area was "closed" (again, see Exhibit B for air photos showing worn trails to beach between 1981 and present). At the 2001 reevaluation, the Commission agreed to allow the University to temporarily extend the closure for another three years (subject to Commission reevaluation at the end of that time, and subject to specific criteria for the reevaluation) provided additional overlooks were developed to offset some of the impacts on public access due to such a closure. In subsequent discussions with the University it was understood that the next reevaluation would take place in the context of the CLRDP submittal and review so that the question of public access and Younger Lagoon could be integrated into the CLRDP. The CLRDP submittal does not propose to open public access to the beach. Nor does it provide specific reevaluation of the issues identified in the Commission's 2001 action. For practical purposes, though, this CLRDP review and action accomplishes the reevaluation contemplated by the Commission. Still, Commission staff have indicated to the University that a formal submittal pursuant to conditions of the base permit[60] is needed to formally close the file on the permit oversight responsibilities of the Commission, and incorporate future access management into the CLRDP implementation process. At the time of this staff report, the University had not yet submitted the reevaluation justification (beyond the CLRDP submittal itself). In addition, the required opening of three access overlooks had not occurred.

In a separate, but related action, in 1999, the Coastal Commission approved an interim public access plan for the terrace portion of the Campus (the Interim Access Plan for the Marine Science Campus). This interim plan was a response to the facts that Younger Lagoon beach was officially closed and the University wished to maintain such closure, the University had acquired the 57 acres of terrace land between the original LML holding and Shaffer Road/De Anza MHP, and that University facility expansion was further limiting general public access. The "interim" nature of the plan was premised on the University developing this CLRDP to provide for permanent access provisions. This previous interim plan designated free public access trails through the terrace portion of the site and to designated overlook areas (for viewing Younger Lagoon Reserve and the Pacific Ocean), ensured free public parking, and confirmed the significance of the docent-led tours by the Seymour Marine Discovery Center as important public access elements. As articulated in this previous access plan, the majority of the terrace portion of the site is open to free public access during daylight hours on designated trails, including nearly 1,000 feet of bluff-top trail at the southern edge of the site. As provided for by the Commission's approval of Interim Access Plan, the provisions of the Interim Plan are superseded by the CLRDP which, among other things, is meant to embody the principles and concepts of the interim plan.

2. Public Access and Recreation Issues

[60] Coastal development permit P-1859 and 3-83-076 as amended.

The CLRDP generally provides for clear access and recreation parameters. The University has clearly embraced the fact that this is a public University Campus and the coastal resources of the Campus should be available to the public to the maximum degree feasible. Thus, and in large measure, the proposed CLRDP clearly protects and provides for public recreation and access as directed by the Coastal Act. This includes significant public trail and overlook enhancements that the University has committed to (see, for example, Chapter 9) and that will provide for an enjoyable and comprehensive public access trail and overlook experience to the terrace portion of the site. Nevertheless, there are a series of Coastal Act consistency issues with the CLRDP as proposed. These issues, including those that require CLRDP modifications, include the following:

Beach and Surfing Access

As previously described, the University has maintained Younger Lagoon Reserve and the beach there as off-limits to general public access for almost 25 years. Nevertheless, use of the sandy beach area by the general public has continued. Such access has predominantly been by surfers accessing the surf break seaward of Younger Beach (known locally as "Marine Labs" or "Younger"). The surf access from the Younger Beach area is much more direct than the over half-mile paddle (and even further to the associated surf breaks slightly further upcoast from Marine Labs) that is necessary if accessed from the State Park at Natural Bridges downcoast. There exists a well worn path from the ocean overlook at the end of McAllister Way along the bluff edge and down to the beach (see Exhibits A and B).[61]

It is inconsistent with the Coastal Act public access and recreation policies cited above to prohibit access to the beach and the area offshore. As described earlier, the sandy beach area is not ESHA. Although the beach and its surroundings are sensitive, it is not unlike other more rural stretches of sandy beach extending upcoast. Accordingly, allowing some surf and low-intensity recreational beach access to it is appropriate and required by the Coastal Act. Specifically, it is reasonable to recognize that this beach and the beach access path to it provide for some access now (notwithstanding the fact that the University actively attempts to keep people out of this area currently), and to accommodate a similar level of access in the future. In other words, a balance can be struck (as provided for by the Act) between the level of access to the beach and offshore and the fact that the beach is located within a University Reserve. The balance would be that the accessway be opened, and the sandy beach made available, but that formal access improvements (such as developing the path to a designated width, new access stairway to the beach, etc.) would not be required unless and until documented demand and public safety concerns warranted such accessway improvements. It is expected that the accessway (and beach use in general in this respect) would be self-limiting to surfers and persons otherwise willing to walk along the "goat trail" to the beach and thus would be of a fairly low intensity. The back beach dune scrub area closer to the Lagoon proper, and the Lagoon itself, would be allowed to be kept closed (and signed and delineated in this way) as it is not conducive to nor necessary for such general beach use, and access to this more inland area could result in habitat problems (see also preceding habitat findings). This seems an appropriate level of use for this particular beach. See suggested modifications that ensure

[61] Note that the Commission specifically ensured that adequate space for the continuation of this path remained as a provision of allowing the University and NOAA to expand the seawater system in the blufftop area in 2001.

that public access to Younger Beach is provided for in a manner consistent with resource protection (e.g., modifications to Implementation Measures 3.6.4 and 3.6.5; Sections 4.2.4, 5.6.1, 7.2.6; Figure 9.2; etc.) and that related trail and access improvements are appropriately provided (e.g., see modifications to Figure 9.2, Section 9.1.2). In terms of timing for signing and opening the trail specifically, six months is ample time for the University to do such minor improvements, and is in recognition of the fact that the accessway is open as of certification of the CLRDP (see also procedural findings), and that six months to have signs catch up to that opening is perhaps overly reasonable (e.g., modifications to Figure 9.2).

Parking

Parking to be provided on the Campus is purposefully limited to avoid devoting large areas of the Campus to pavement and automobiles, and to reduce Campus reliance on automobile transportation (thus reducing its attendant adverse impacts on and off-site). Because of this purposeful supply limitation, there is concern that demand for scarce parking spaces may inordinately impact general public parking spaces (no matter how they are designated) that provide access to visitors to Campus coastal resources (including paths, overlooks, beach, etc.). This same concern applies to off-site parking areas on adjacent public streets that provide for access to coastal resources as well (such as parking along Delaware Avenue that provides access into Natural Bridges State Park downcoast). It seems likely that Campus users, including students, may overwhelm parking supply and that the general public may be the most affected in this regard. The CLRDP includes some measures to protect against this, including requiring the University to satisfy demand associated with development on-site in such a way that does not affect general public users (including through providing alternatives to vehicles like shuttles, etc.), but there remains a lack of certainty that the public would not be left without adequate parking.

Related to this, the University indicates that access to the Campus would be free (see Section 6.1.1), but also indicates that public access parking would be metered. It is not clear, and the CLRDP and University have not explicitly clarified, how the free access requirement would be implemented through metered parking.

Currently, all 215 parking spaces existing at the Campus are free; available on a first-come, first-serve basis.[62] This is consistent with previous Commission permit approvals, which did not allow restrictions on new parking. Much of the existing parking is used by current employees of existing facilities, visitors to the Marine Discovery Center, and the general public, although no systematic parking surveys of actual use patterns are available. Under the CLRDP parking scheme, the general public would be provided 10 metered spaces in the Lower Terrace, 5 metered spaces in the Middle Terrace, and 15 near the Campus entrance: a total of 30 spaces. An additional 50 spaces would be provided for dual use between the general public and users of the Marine Discovery Center. Parking before 8 and after 5 and all day on weekends and holidays would be first-come, first-served, and free. Although no specific

[62] Note that the CLRDP identifies 245 parking spaces as "existing." However, the informal parking area just inland of LML, and the parking associated with the greenhouses are not covered by a coastal permit authorization, and thus are not existing facilities in that sense. Modifications are included to correct these parking space count and related references in the CLRDP (see, for example, modifications to Sections 2.3, 5.2, 5.5, 5.6, 6.3, and 7.1).

public parking demand analysis is available, on its face the CLRDP would result in a reduction in the availability of first-come, first-serve, free parking spaces, even more so as competition for spaces intensifies as the Campus is built out. To the extent that fees were charged, as is suggested by the proposed metered parking, public parking access would be further reduced. Such impacts are not consistent with the Coastal Act.

In order to find the CLRDP consistent with respect to public parking, modifications are included to ensure parking is provided commensurate with new development demands (e.g., including modifications to Implementation Measures 5.4.2, 5.4.4) as well as other circulation improvements (e.g., modifications to Section 9.3.1); and to ensure that there is adequate, convenient, free parking for visitors to Campus who wish to view the shoreline, hike on the trails, go to the beach, or otherwise enjoy coastal resources (e.g., including modifications to Sections 4.2.7, 5.5.1 "Parking…," 9.1.3; Implementation Measures 5.3.2, 5.3.3, 5.3.4, 5.3.5, 5.5.1, 5.5.2, 6.1.2, 6.2.3, 6.2.4, 6.2.5, and 6.2.10; Figures 5.2, 5.5, 9.4; etc. – see also related findings of this section and the procedural findings).[63] In addition, the timing for the improvements related to the public access parking spaces in Chapter 9 have been modified to be timed to be completed within six months of certification of the CLRDP.[64] The purpose of this timing modification is to recognize that there will be an immediate impact to public access parking inasmuch as the entire parking paradigm for the site is shifting and it is inappropriate for that to result in an impact to these public parking spaces. Six months is a reasonable amount of time for the University to put a parking program into place that satisfies the CLRDP requirements related to public access parking. Such modifications are particularly necessary because (1) the University's building program will impact existing public access; (2), these impacts are only partially offset by providing public parking; and (3) this is a public University, and the Marine Science Campus is public land. The Coastal Act requires that existing public access be protected, and that *maximum* public access be provided, consistent with resource protection, public safety, etc. New development should also provide low-cost public access and recreational opportunities. Thus, the suggested modifications are necessary to find the CLRDP fully consistent with the Coastal Act.

Overlooks

The CLRDP provides for six overlooks: two requiring docent supervision on the YLR side of the berm, and four that would provide unsupervised access. Two of the six are existing developed overlooks, one is partially developed, and three would be developed in the future. Although the University committed to developing a series of overlooks to offset public access impacts both when YLR was allowed to be put off-limits in 1981, and in 2001 when the Commission allowed the closure to continue temporarily, there are only two operational overlooks at this time. The Commission notes this, but also does not require that the other overlooks all be developed and opened immediately with this action. Rather, the Commission acknowledges that in the context of the development envisioned by the CLRDP, and the

[63] The Commission expects that the University's parking programs will account for the fact that some public access parking may occur before 8 am (i.e., between the Campus public access opening hour of one-hour before sunrise and 8am), and that these coastal access visitors are provided an easy means of continuing their parking within public access parking spaces without being penalized for arriving prior to 8am.

[64] Note that some of the timing modifications in Chapter 9, such as for the public parking, are also discussed in the procedural findings.

access provided through its action (including beach access, and including the timing associated with access improvements) such overlook development is most appropriately provided for as development progresses at the site.[65]

Nevertheless, there remain several specific changes that are necessary to ensure both that the existing overlooks continue to provide maximum public access benefit, and that changes to them and development of new overlooks do the same, including in a timely fashion. Toward this end, modifications are included to ensure that this is the case (see suggested modifications, particularly to Chapter 9 and Chapter 7). In terms of the existing ocean overlook at the end of McAllister Way, very detailed modifications are provided. This is due to the fact that this overlook is the primary publicly accessible overlook on the Campus, and it is perhaps the most potentially threatened by inappropriate development encroaching on it. This area seaward of the existing marine mammal pools provides an excellent opportunity for the general public to see the facilities associated with a working lab (like the seawater facilities) and the ocean vista. This area needs to balance marine research development against the objective of maintaining and enhancing the feeling of openness and the coastal views. Toward this end, modifications are designed to ensure that this area maintains that balance, including limiting development there, and requiring specific enhancements in recognition of its public access use value (see, for example, modifications to Section 7.2.6 and the new height figure previously referenced). In addition, and related to beach access, very specific parameters are also identified related to providing for access to the beach from the ocean overlook (see, for example, modifications Chapter 9).

Access to Resource Protection and Buffer Areas

The "Resource Protection" and "Resource Protection Buffer" land use designations are not intended to preclude public access. On the contrary, the CLRDP identifies an access system that goes into and out of these areas (including, as modified herein, the sandy beach area). Modifications are included to ensure that it is clear that the "Resource Protection" and "Resource Protection Buffer" overlays are not meant to absolutely preclude public access, and so it is clear that these accessways, including access improvements pursuant to Chapter 9, are allowed and contemplated within these areas (see, for example, modifications to Sections 3.1.1, 4.4.2, 5.2.2 "Resource Protection," 7.2.6; Policy 3.6; and Figure 4.1.6).

D. Public Access and Recreation Conclusion

Overall, the CLRDP provides for substantial access and recreation opportunities, including committing the University to a series of access improvements over time. That said, as described in the discussion above, there are a series of CLRDP modifications that are necessary for the Commission to be able to find the proposed CLRDP consistent with the policies cited above with respect to such public access and recreation (see suggested modifications, including those in Exhibit E). In addition, related and overlapping modifications required to find public access and recreation consistency are found throughout the CLRDP, including modifications related to land use, habitat, and public viewsheds, and modifications designed to ensure that the CLRDP as a whole functions correctly in order to ensure that

[65] To the extent the CLRDP is not implemented as envisioned, the Commission could separately revisit this issue through condition compliance.

the CLRDP's public access and recreation provisions are fully implemented (see suggested modifications, including those in Exhibit E).

In conclusion, if so modified in all of the ways outlined here according to the cited modification texts, then the CLRDP is certified as being consistent with the public access and recreation provisions of the Coastal Act.

4. Public Viewshed

This section describes public viewshed issues, including an analysis of the scale and scope of development contemplated by the CLRDP. Such issues overlap significantly with habitat protection issues previously described as well as issues pertaining to the urban-rural boundary and the type and scale of development appropriate in such a transition zone.

A. Applicable Policies

Coastal zone scenic resources are afforded a high level of protection by the Coastal Act. The Act protects such resources through a number of complementary policies. Some of these policies speak directly to view corridors, others to landform alteration, yet others to maintaining the character of special coastal zone resource areas. The Coastal Act states:

> ***Section 30001(b).*** *The Legislature hereby finds and declares that the permanent protection of the state's natural and scenic resources is a paramount concern to present and future residents of the state and nation.*
>
> ***Section 30251.*** *The scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance. Permitted development shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural land forms, to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded areas. New development in highly scenic areas such as those designated in the California Coastline Preservation and Recreation Plan prepared by the Department of Parks and Recreation and by local government shall be subordinate to the character of its setting.*

Coastal Act Section 30240(b), previously cited, also protects adjacent park and recreation areas (such as Wilder Ranch State Park, Moore Creek Preserve, and Natural Bridges State Park) against significant visual degradation. Section 30240(b) states, in applicable part:

> ***Section 30240(b).*** *Development in areas adjacent to … parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas, and shall be compatible with the continuance of those … recreation areas.*

In addition to the landform alteration reference in Section 30251, Coastal Act Section 30253 also directs new development to avoid alteration of the natural landform. Section 30253 states, in applicable part:

> ***Section 30253(2).*** *New development shall assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs.*

Coastal Act Section 30253(5) protects community character. Section 30253(5) states:

> ***Section 30253(5).*** *New development shall where appropriate, protect special communities and neighborhoods which, because of their unique characteristics, are popular visitor destination points for recreational uses.*

Visual access to and along the coast is also considered a form of public access. As such, the Coastal Act's previously cited access polices are also relevant.

In sum, the Coastal Act visual policies interrelate and overlap. In general, the Coastal Act requires that development be sited and designed to protect views of and along scenic coastal areas, minimize the alteration of natural landforms, be visually compatible with the character of surrounding areas, and, where feasible, restore and enhance visual quality in visually degraded areas. New development in highly scenic areas is required to be subordinate to the character of its setting. The Coastal Act's visual policies are also related to other previously identified resource protective policies. For example, policies that protect agricultural lands from conversion to urban uses likewise protect the rural open-space character of the coastal zone. Also, policies that protect environmentally sensitive habitat areas from degradation, preserve scenic resources since these habitat areas, and more specifically their health and vitality, also contribute to the visual character of the coastal zone. These policies are reinforced by and reflected in LCP policies applicable to views in Santa Cruz County, including views from the rural north coast.[66]

B. Applicable Provisions of Proposed CLRDP

The proposed CLRDP proposes to protect public viewsheds generally in two ways. First, it clusters structural development in three main development zones, generally preserving the natural terrain and open space views over the remainder of the site. The boundaries of the development zones were at least partially created based on mapping and avoiding certain view corridors, including that from southbound Highway One (one reason why the area between the Middle and Lower Terraces is to be left open) (see Figure 3.16 and Section 4.3). Second, it sets design standards for structural development, generally to be in keeping with a coastal rural and agriculture structural motif. For example, buildings, though large forms, are limited to two stories and construction materials are to "relate strongly to the vernacular style of coastal architecture." The CLRDP also includes design standards for parking lots, trails, fencing, signs, lighting, and other Campus features (see, for example, the design principles of Section 4.3 and the design guidelines of Chapter 6).

[66] Including Santa Cruz County LCP Sections 5.10 et seq, 5.11, 7.7.1 and Chapter 13.20.

C. Coastal Act Consistency Analysis

As described in previous sections, the Campus site is located at a land use transition zone between urban Santa Cruz and Santa Cruz County's rural north coast. By extension, and partially as a result of the land use, it is also located at a visual transition zone. In fact, the Campus is in a highly scenic location, being visible from Highway 1 and located at the entryway to the City for southbound travelers from rural Santa Cruz County. Portions of the site are also visible from trails and other public areas of Wilder Ranch State Park upcoast and inland, the City's Moore Creek Preserve directly inland of Highway One from the site, Natural Bridges State Park downcoast (including in particular its blufftop overlook and parking area immediately adjacent to West Cliff Drive), and offshore. There are also additional public viewing locations closer to and on the site (at the Campus entrance, the public trails, etc). In sum, the site is located within a series of significant and important public viewsheds,[67] some from more distant vantage points and others right on and adjacent to the site. Therefore, the degree to which Campus development over time minimizes public viewshed impacts is critical. Inherent in this discussion is the scale and scope of development allowed under the CLRDP.

There is no doubt that development of the magnitude envisioned by the proposed CLRDP will alter the setting and the overall scenic aspects of the public viewshed at the site. The site would no longer be evocative of "a scattered research outpost along the coastal bluff" as it was previously described by the Commission at the time of the last major development project for the Campus,[68] and as was the original operating premise for siting LML in the first place as an "intentionally isolated facility." The expected build out would result in an array of large buildings located in the center of the site, a major expansion of the main LML complex nearest the ocean (roughly double LML's current gsf), and a completely new area of large buildings and developed outdoor laydown space near the railroad tracks and north of Delaware Avenue. All told Campus development at buildout would be roughly three times the scope of Campus development currently, and roughly four times the amount of existing permitted gsf at the site (totaling some 560,000 gsf of building and related structures compared with roughly 140,000 gsf currently). Given that there would be additional development outside of the three development zones (roads, parking, wet ponds, etc.), the scope of Campus expansion would be somewhat higher overall than this. UCSC has prepared photo simulations representative of the scale and scope of the Campus at buildout that help articulate this concept (see Exhibit D).[69]

In this regard, it is instructive to review the Commission's previous findings with respect to evaluating the appropriateness of such potential buildout at the site when the last major development proposed was reviewed in 1999:

> *The Commission also finds that with the completed construction of the proposed Ocean Health Building, along with the Marine Discovery Center (nearing completion), the NMFS [NOAA} facility (under construction), the CDFG facility and the remainder of the developed LML campus*

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[67] See also CLRDP Section 3.8.

[68] 1999's Ocean Health project, CDP 3-83-076-A13.

[69] Again, these are based on proposed CLRDP Figure 7.2 and must be understood as an example of one potential buildout scenario, and not necessarily how the site would develop over time. These figures also do not portray any of the wet ponds.

site, a significant cumulative visual impact from building scale and site coverage may well occur. Note that the NMFS facility authorized by the Commission in 1998 and currently under construction will be a 36 feet tall, 2 story, 53,400 square foot building mass at the center of the Terrace Point site. With the exception of these facilities, the surrounding Terrace Point area is primarily open space, and nearby structures to the east are of low heights (i.e., the De Anza Mobile Home Park with structures 12 feet in height or less). A continued development pattern of the intensity and height of the existing and proposed [Ocean Health building] facilities across the Terrace Point parcel would substantially transform the visual character of the Westside Lands, particularly its open coastal bluff setting and natural resource areas.

In other words, notwithstanding its visual compatibility as a complementary project adjacent to existing similar uses, the proposed Ocean Health building and the resulting density of the LML node, will affect the visual character of the overall Terrace Point area. If the Center for Ocean Health is approved as envisioned, these impacts can only be accounted for through future planning efforts for Terrace Point. The Commission observes, therefore, that future development proposals for Terrace Point will need to be evaluated within the context of the entire site, including the partial commitment to development on the western fringe of Terrace Point that the LML campus represents.

With the completion of the Ocean Health Building, the LML campus on the southern terrace of the LML parcel should be viewed as a tight cluster of grouped uses appropriate to maintaining the campus perimeter. Such a facility should be viewed as a developed node on the otherwise undeveloped coastal meadow. The Commission considers the density, scale and mass of this primary LML campus development as unique to this specific site within the overall Terrace Point area, and does not view this permitted development as indicative of the general scale of development appropriate for the vacant Terrace Point lands. Moreover, by allowing such a mass, scale, and density of development at the LML campus site, the Commission expects that large undeveloped open space areas which separate developed areas of the property will be observed should other development be contemplated for the overall vacant Terrace Point parcel.

In fact, a general pattern of "node" development has already partially been established as a result of permitted development at Terrace Point. This nodal development is characterized by larger blocks of open space and wetlands between built portions of the landscape. The main LML campus and the Marine Discovery Center form such a node while the general NMFS/CDFG area form a second node on the property. Such nodal development has come about partially in recognition of Terrace Point site wetland resources which act to separate development. Future development scenarios will likewise be shaped by the developed nodes and the site resources.

The development allowed by the CLRDP will clearly result in public viewshed impacts on the order of magnitude specifically identified by the Commission in the above findings as raising concerns for the site overall in 1999. There is no avoiding such impacts completely with the degree of development articulated in the CLRDP building program. In particular, buildings being proposed are large. For

example, the USGS buildings identified in Chapter 7 would be nearly 80,000 square feet (see Figures 7.2, 7.5, and 7.6). At two stories and 36 feet tall, that represents a building footprint of about an acre, a height as tall as anything now on the site, and a gsf massing that is roughly the same as all of the current UCSC facilities currently existing on the site combined.[70] Such a facility would be considerably larger than the NOAA Fisheries Lab – currently the largest and most visually imposing development at the site. Although such a building would not necessarily be developed in the future (it is a maximum under the CLRDP), this example (and the example site plan of Figure 7.2) is helpful to understanding the magnitude of the development possible under the CLRDP.

As articulated with respect to other coastal resources, this viewshed impact is a trade-off that must be understood in relation to the priority coastal-dependent/related use provided for by the CLRDP. Avoiding (or even drastically reducing) additional development visible in surrounding public viewsheds would directly impact the ability of the site to function as a world-class marine research institute. Because of the Coastal Act priority use, and because of the importance and potential for this site to strengthen the boundary between significant rural resources to the west and urbanized north Monterey Bay to the east, the Commission believes the Coastal Act can allow for the CLRDP development program, provided everything possible is done to minimize its impacts on public views, including reinforcing the sense of "tight clusters" of "developed nodes on an undeveloped coastal meadow" "separated by large undeveloped open space areas" as articulated in the findings above (and not a developed area with smaller patches of coastal meadow between them).[71]

In this context, the CLRDP as proposed contains important development themes for minimizing such impacts (including clustering masses in defined development zones, and requiring building articulation and design, vernacular forms and materials, tapering near perimeters, landscape screening, etc.). These measures will help to de-emphasize the scope and scale of development contemplated. However, some provisions within this CLRDP framework do not result in full consistency with the cited Coastal Act policies. While the development zone/view corridor "clustering" and design criteria provisions are needed, the fact is that the Campus is developing in an open space (former agricultural) area that has long contained unimpeded views to and along the coast (see time series air photos in Exhibit D). In addition, site development to date evokes the sense of an isolated research station on the edge of a larger coastal meadow just outside the urban-rural boundary. It is clear that the scope and scale of the CLRDP building program will strain the ability of the developed site to look like something other than a developed area akin to a large business park development.

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[70] Note that, as previously described, Chapter 7 building studies are just examples of how development may turn out and must be understood in this way. Even so, this type of exercise is helpful in understanding just what types of buildings and development would be possible under the CLRDP.

[71] Note that this balancing of priority uses against their impacts is consistent with the manner in which the Commission has previously evaluated UCSC development proposals at Terrace Point. For example, in the case of the Ocean Health building project in 1999, the Commission found as follows regarding the LML core: "although the local site vicinity would be altered by the new building, such a building, and the marine research educational mission it serves, represents a Coastal Act priority use. The proposed building would be similar in size and mass to the Marine Discovery Center and would serve to consolidate and expand LML marine research activities. On balance, the Commission finds that the proposed building is compatible with the existing LML development and will not adversely impact the public viewshed at this location."

In order to find the CLRDP consistent with the Coastal Act visual policies, a series of modifications are necessary. Some of these modifications are relatively straight-forward factual corrections regarding existing conditions (e.g., correctly characterizing public views in Section 3.8; correctly identifying existing development in Figures 2.12, 2.26, 5.1, and 7.1; correctly identifying existing structural dimensions in Chapter 6, etc.). Other modifications address general viewshed protection themes, such as ensuring that public views are broadly interpreted and protected, as opposed to a narrow reliance on the development zone concept to protect views (e.g., modifications to Policies 4.1 and 4.2 and associated implementation measures); providing for appropriate building scale and separation so that development within each node is not perceived simply as a large mass of buildings both from within the Campus and from public views of the Campus (e.g., modifications to Section 6.1.2); limiting fencing and drainage facilities that adversely impacts views (e.g., modification to Section 6.8.1, Figure 6.8; and Appendix B) and designing drainage facilities to be as natural looking as possible.

Further significant modifications are necessary with respect to siting, sizing, and intensity of development, particularly in critical areas of the Campus. As previously detailed, the CLRDP as currently structured provides a certain amount of flexibility with respect to precise siting and scale of individual buildings and related development within development zones, notwithstanding the site plan related figures within the CLRDP (like Figure 7.2) that depict certain locations for CLRDP development. However, the CLRDP does not contain adequate complementary policies to ensure that such an approach does not result in development scenarios unexpected and/or inconsistent with protecting public views to the maximum degree feasible.[72] In other words, the development zone/view corridor concept on which the CLRDP is largely premised for protecting views is incomplete in this respect. In addition, the maximum scale of potential individual buildings (allowed by the CLRDP to 36 feet in height and up to 80,000 square feet) is inconsistent with the existing scale of Campus buildings and not conducive to protecting public views.

In each development zone case, and to differing degrees, the primary CLRDP modifications necessary relate to development clustering within zones (as opposed to relying on the zones themselves as the clustering tool as is the case as proposed); limiting the highest intensity development to the center of development zones so as to concentrate development scale there; articulation of buildings at perimeters of zones so that lower heights/intensities are present along perimeters (helping again to reduce the perceived scale of development); minimizing building heights to the degree feasible to again limit the scale and massing of development; and articulating appropriate intensities within defined areas, particularly along the perimeters of the zones. Central to these modifications is a new CLRDP figure designed to identify maximum building heights (see new height figure at the end of Exhibit E) and new implementation measures articulating development intensities for certain areas (see suggested modifications to Chapter 5, including Section 4.2).

For the Lower Terrace development zone, several modifications are necessary, including precluding a portion of this area from being developed at all. With respect to the latter, the area located east of the Marine Discovery Center and seaward of Wetland W5 is slated for development in the proposed

[72] For elaboration of this issue, see also discussion in the preceding habitat findings.

CLRDP (see, for example, Figures 5.2 and 7.2). This area is currently undeveloped grassland that is located along the shoreline edge of the Campus between two designated Resource Protection Buffers and is part of the undeveloped shoreline portion of the Campus extending between the Discovery Center and De Anza MHP. As the Commission previously found regarding this area in 1999:[73]

> *It is unlikely that additional development should or could take place seaward of Wetland [W5] as lands not committed to the LML campus and the Discovery Center are constrained by the presence of the wetland and the coastal bluff.*

It is inappropriate to site development in this area for several related reasons including that development here would inappropriately block ocean views from within the Campus, including from the public trail system; would result in more massing visible along the shoreline edge, thus extending the perimeter of massing in the lower terrace and emphasizing additional Campus mass (over what exists now) as seen from on and off-site, particularly from seaward vantage points, as opposed to deemphasizing it through clustering; and would be located as close to the bluff as the Discovery Center (currently the closest major building to the blufftop edge) along an eroding shoreline.[74] To protect public views, this area must be removed from the development zone (see figure modifications at the end of Chapter 5).

As to other changes specific to the Lower Terrace, the main cluster of LML development must be contained within the central core of the zone, and not allowed to sprawl outward. A tightly packed development node is more in character with the marine research station character established at the site, and will help to soften the degree of development allowed by the CLRDP for this zone by confining it in an existing developed core. The largest existing building is the Center for Ocean Health, and only its proposed expansion is allowed at this height (36 feet). Otherwise, all other building will be limited in the core to 24 feet, which is the height of the next tallest building currently in the development zone (the Marine Discovery Center). As to a maximum building gsf, the CLRDP proposes 25,000 gsf in the Lower Terrace. However, the two largest existing buildings in the Lower Terrace are 23,000 (Ocean Health) and 20,000 (Discovery Center) square feet. A 25,000 square foot building would be larger than either, and when combined with an expanded Ocean Health building (currently proposed by the University at 41,000 square feet total) would result in a development intensity that exceeds the capacity of the zone to sustain. It is more appropriate that any new buildings be limited to a maximum of 20,000 square feet; a size capable of accommodating the CLRDP building program as evidenced by the Figure 7.2 example. In this way, the LML node will be tightly clustered to the degree feasible, the CLRDP building program can be accommodated (see, for example, Figure 7.2), and the zone will better be perceived as an isolated outpost of marine research buildings as opposed to sprawl of large buildings. Outward from the "core," development needs to "ramp down" away from the core. Along the seaward-most perimeter, only very low intensity development is appropriate, and thus development in this area is limited to a maximum of six feet in height and limited to seawater system, circulation, parking (i.e.,

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[73] This was the last time that the Commission explicitly evaluated this area. At the Issue Identification hearing in 2000, this area was not shown as a potential development area, in part because it was within a area deemed to be a blufftop setback area (within 300 feet of the blufftop edge at that time), and thus not considered in a development context (other than the Commission noting that not developing in this area "appears to be appropriate, provided that development is prohibited.")

[74] And would inappropriately impact Wetland W5, the large wetland nearest LML; see also preceding habitat findings).

existing parking), and public access facilities that do not block or degrade views to ensure that inappropriate development does not adversely impact views. Similarly, development along the north and east perimeters of the zone (shown as parking on Figure 7.2) must be limited to again confine development to the LML core, and ensure that large buildings and other structures don't expand this core inappropriately to the perimeter and lead to viewshed inconsistency. In this area, through views will mostly be retained by ensuring no buildings are developed there, but ground level type development could be (such as the parking areas shown in Figure 7.2). A 12-foot height limit (the same height as the berm on the west side of the zone, and similar to residential heights associated with De Anza MHP east of the site) is allowed in this area to accommodate the parking lot light standards of the CLRDP, but it is not meant to accommodate significant structural development up to that height that might significantly impact coastal views. In all cases, confining development to the core in these ways also protects YLR and Wetland W5 (see also preceding habitat findings).

With respect to the Middle Terrace development zone, similar modifications are also required for Coastal Act consistency. In this zone, as with the Lower Terrace zone, the fundamental change reflected in the modifications is to more effectively cluster development within the central core of the zone (again, see new height figure at end of Exhibit E), to reduce overall heights, and to ensure that development along the perimeter is of a relatively lesser scale and intensity so as to avoid blocking through views and to reduce the perceived sense of massing within the zone by softening the edges of the built area, including through building articulation requirements and landscape screening. Similar to the lower zone, these same changes are also necessary to protect YLR (in the case of the area within 300 feet of the Lagoon and its riparian/stream eastern arm) and terrace wetlands and their buffers bordering the zone (see also habitat findings).

Towards this end, the core of the Middle Terrace zone will have a maximum 30-foot height limit (i.e., approximately the height of the tallest roof peaks at the existing CDFG facility – though the majority of this facility is about 20 feet tall); lab buildings could be as high as 36 feet in the core of this zone to the extent it is shown to be infeasible to maintain a 30-foot height due to the vertical clearance necessary for specialized laboratory requirements (for mechanical systems, ductwork, etc.) (note that 36 feet is the height of the NOAA facility, the tallest in this zone). As to a maximum building gsf, the CLRDP proposes 80,000 gsf in the Middle Terrace. Based on communications between the University and staff, it appears that this proposal may have been an error, and that a smaller maximum gsf would be acceptable to the University. To be sure, 80,000 square feet is nearly 30,000 square feet greater than the existing NOAA facility, and would be completely out of character with the site. This maximum gsf needs to be cut in half (to 40,000 square feet); the result would still be a rather large building, but roughly equivalent to the NOAA building size identified in Chapter 7. Building separation standards must be included to avoid too dense of development (and to avoid the phenomenon of multiple buildings appearing as one). Residential development would be confined to the area nearest the Campus entrance between the realigned Campus Road and Wetland W4 (i.e., in the location shown on Figure 7.2). This location serves to cluster residential development as close to urban and residential Santa Cruz as possible (as near to De Anza MHP within the zone as possible), thus preserving locations within the Campus core and nearer to the ocean for higher relative priority development (and development requiring larger forms, like lab buildings), and avoids residential development in the Upper Terrace

altogether.[75] The area east of the Campus core would step down (from 30 feet) to a 24-foot height limit, and this same 24 height limit would apply in an area just north of the core and a smaller area just west as well (see new height figure at end of Exhibit E). Although 24 feet is about twice as tall as residential structures at the adjacent De Anza MHP, this taller height appears warranted in these areas inasmuch as it is equivalent to the second tallest LML building (the Marine Discovery Center at 24 feet), and would allow the University increased flexibility in terms of building up. At the same time, the CLRDP's requirements for development to "ramp down" near development zone perimeters should assure that the 24-foot height doesn't appear overbearingly massive from on and off-site views. As previously described in the habitat findings, the area within 300 feet of Younger Lagoon would be limited to the lowest intensity uses and a 12-foot height limit (again, similar in height to the berm on the lower portion of the terrace and the De Anza MHP). Along with complementary CLRDP provisions (for ramping down development, keeping movement areas not visible from YLR, siting and design criteria otherwise for development adjacent to YLR and habitat resources, etc.), this will serve a habitat purpose (as previously described), and also a viewshed purpose inasmuch as the development will taper along this western edge, again reducing the perceived sense of scale associated with the CLRDP building program as viewed from on and off site.

The uppermost portion of the Middle Terrace zone is within a particularly sensitive portion of the viewshed. The view corridor that was used to define this upper boundary of the Middle Terrace zone (see Figure 3.16) appears to have been misidentified. There are obviously a variety of tools that could be used to define this corridor, but it is not clear why it extends to the northwest as opposed to the southwest in the CLRDP (see Figure 3.16). Given the most northerly development on the site currently is the CDFG facility, it makes the most sense that this entrance view corridor would be delineated from the edge of the CDFG facility to the north (whether from the main CDFG building or from the smaller outbuilding northwest of it) and thus extend more southwest than identified in the CLRDP. In any case, the main Campus access road is to be reconfigured to the south (see Figures 5.4 and 7.2) pursuant to the CLRDP,[76] and the old campus access road abandoned and this area restored as a trail and habitat feature (between CDFG and the intersection of Delaware Avenue and Shaffer Road). As a result, the primary view of the site when entering the Campus would be along this new road and trail, and the area located north of CDFG would most appropriately be kept free of structures that might impact the sweeping westward views from the realigned trail and/or the Campus access road (as well as might impact the habitat resources present there – see also habitat findings). It could reasonably be argued that the area north of CDFG should be removed from the development zone altogether. In this case, however, the Commission finds that it is better to strike a balance that recognizes that the other modifications previously described will lessen CLRDP building program development intensity in various ways, and that this area may be kept in the development zone to provide the University with development siting flexibility. Nevertheless, the area remains sensitive locationally, and it is inappropriate for building and other development that might significantly block through views. In addition, given the road abandonment and given the habitat north and west of this area, including its function as a wildlife

[75] Where such residential noise, lights, and bustle of activity would negatively impact wildlife corridors (again, see also habitat findings).

[76] Unlike other site plan location figures, the location of the Campus road is fixed per the CLRDP (as articulated in Section 5.5.1). As a result, it is known that the road location on Figures 5.4 and 7.2 is where the realigned roadway will be located per the CLRDP.

movement corridor, this area is only appropriate for very low intensity development that might benefit from a more isolated location (see modifications to Section 5.4). A 12-foot height limit is allowed in this area to accommodate the parking lot light standards of the CLRDP (in the event a remote-type lot is located in or partially in this area), but it is not meant to accommodate significant structural development up to that height other than light standards as necessary.

In the area between the Middle and Lower Terrace development zones, an informal parking area has sprung up west of McAllister Way. This area is about a car length deep perpendicular to the road. This parking area is identified as existing in the CLRDP (see Section 2.3 and Figure 2.26), however it has never been formally recognized by the Commission. The CLRDP is internally inconsistent on this point inasmuch as this area is not located within a development zone (and thus would not allow for a parking area in it per the "Open Space" land use designation), but is shown on the Figure 7.2 example as a potential parking area, and is alluded to by Section 6.3 in the design guidelines.

In any case, allowing parking in this area is not appropriate for a variety of reasons including that: areas outside of development zones are not meant to be developed in order to protect habitat, views, and other coastal resources consistent with the overall CLRDP framework, and allowing parking here would be inconsistent with this framework and would require special exceptions be written into the CLRDP to account for it; allowing a parking lot at this location would make the two development zones appear to meld into one, negating the ability of the zone concept to provide for adequate visual separation between zones; it appears that there is insufficient space in this area to accommodate a parking area that could be found consistent with the CLRDP policies applicable to such parking development (in terms of size, screening, location, adjacency to road, etc.); and finally, this area is located inside of an area within 100 feet of both Wetland W5 and YLR, within 300 feet of Younger Lagoon,[77] and within 150 feet of W5,[78] and this area is best called out for resource protection buffering than parking to protect habitat.[79] Modifications are included throughout the CLRDP to clarify the existing context, and to ensure it is clear that parking it not allowed in this open space, resource buffer area (e.g., including modifications to Sections 2.3, 5.2, 5.5, 5.6, 6.3, and 7.1).

For the Upper Terrace development zone, a 30-foot height limit (see new height figure at end of Exhibit E) along with the other related siting and design criteria should help this area to meld better into the public viewshed. The CLRDP does provide for a significant amount of large-scale development here, but that scale can be offset by its relatively isolated location, particularly as buildings and related structures are designed to ramp down at the perimeter of the development zone, and to be articulated in such a way as to recognize the wildlife movement areas that surround the zone.

D. Public Viewshed Conclusion

The proposed CLRDP viewshed protection policies are inadequate to protect the public viewshed

[77] Where 300 feet has been deemed the minimum appropriate buffer distance from the Lagoon by the Commission's staff ecologist.

[78] The appropriate buffer distance applied to Wetland W5 by the CLRDP is 150 feet.

[79] See also habitat findings preceding this one.

consistent with the cited Coastal Act policies in light of the CLRDP building program envisioned. This is particularly the case because certain parameters – including siting – of CLRDP development are not well specified in all cases. If the Commission is to allow for the scale of development proposed in light of its priority under the Act, and in light of the ability of this site to function as a viable transition between urban areas to the east and rural areas to the west, then the CLRDP must be modified to protect the site – and by extension the public viewshed from on an offsite – from inappropriately large development. Proposed CLRDP policies for clustering and design are a step in the right direction, but they need more focus and direction to clearly concentrate development within the core of the development zones, reduce development intensity towards the perimeters of developments zones, cap overall building size and height, and provide extra protection for portions of the site that are particularly sensitive within public viewsheds (i.e., adjacent to the shoreline, adjacent to YLR, adjacent to wetland habitats, adjacent to wildlife movement areas, adjacent to trails, etc.). If modified as suggested, then the perceived scale and intensity of CLRDP development will be reduced, the site can more closely approximate the intentionally isolated research institute that framed the decision to originally allow any development at Terrace Point consistent with its location and utility as a transition zone, and, to the extent feasible given the scope of the building program, can also more closely approximate the concept of clustered development zones within a coastal meadow that will allow the site to integrate into the established public viewshed. In all cases, related and overlapping modifications required to find public viewshed consistency are found throughout the CLRDP, including modifications related to land use, habitat, and public access, and modifications designed to ensure that the CLRDP as a whole functions correctly in order to ensure that the CLRDP's public viewshed provisions are fully implemented (see suggested modifications, including those in Exhibit E). In conclusion, only with the noted modifications will the CLRDP be consistent with the cited visual policies.

5. Coastal Hazards

A. Applicable Policies

Coastal Act Section 30253 addresses the need to ensure long-term stability and structural integrity, minimize risk, and avoid landform-altering devices. Section 30253 provides, in applicable part:

> ***Section 30253.*** *New development shall:*
>
> *(1) Minimize risks to life and property in areas of high geologic, flood, and fire hazard.*
>
> *(2) Assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs.*

Coastal Act Section 30235 addresses certain hazard response development (such as shoreline protective devices). Section 30235 states:

> ***Section 30235.*** *Revetments, breakwaters, groins, harbor channels, seawalls, cliff retaining walls, and other such construction that alters natural shoreline processes shall be permitted*

when required to serve coastal-dependent uses or to protect existing structures or public beaches in danger from erosion, and when designed to eliminate or mitigate adverse impacts on local shoreline sand supply. Existing marine structures causing water stagnation contributing to pollution problems and fish kills should be phased out or upgraded where feasible.

Coastal Act Section 30235 acknowledges that certain types of development (such as seawalls, revetments, retaining walls, groins and other such structural or "hard" methods designed to forestall erosion) alter natural shoreline processes. Accordingly, with the exception of new coastal-dependent uses, Section 30235 limits such construction to that that is "required to protect existing structures or public beaches in danger from erosion." The Coastal Act provides this limitation because shoreline protection structures and similar development can have a variety of on and off site negative impacts on coastal resources including adverse effects on sand supply, public access, coastal views, natural landforms, and overall shoreline beach dynamics.

Coastal Act Section 30253 requires that risks be minimized, long-term stability and structural integrity be provided, and that new development be sited, designed, and built to allow for natural shoreline processes to occur without shoreline altering protective devices. Coastal development permittees for new shorefront development thus are essentially making a commitment to the public (through the approved action of the Commission) that, in return for building their project, the public will not lose public beach access, sand supply, ESHA, visual resources, and natural landforms, and that the public will not be exposed to hazardous structures or be held responsible for any future stability problems that may affect the development. Coastal Act Section 30253 requires that the proposed project assure structural stability without protective devices.

B. Applicable Provisions of Proposed CLRDP[80]

The CLRDP requires that new development be sited and designed to avoid the need for shoreline armoring over its lifetime, including requiring include enforceable provisions for addressing any future bluff retreat/erosion danger to the development without shoreline armoring (e.g., moving the development, removing the development, etc.). Other than existing streets, existing and proposed access and recreation amenities (see Section 5.6 and Figure 5.5), infrastructure improvements requiring a near bluff edge location (i.e., seawater system facilities), habitat restoration/enhancement, and directly related minor structures (such as irrigation, public safety fencing, etc.), development is also prohibited within 100 feet of the blufftop edge. Shoreline armoring is only allowed as a last resort to protect structures existing at the time of CLRDP certification that are proven to be in danger from erosion, and only if: (a) less-environmentally damaging alternatives to armoring are not feasible (including relocation of endangered structures); and (b) the armoring has been sited, designed, and accompanied by feasible measures to proportionately mitigate any unavoidable negative coastal resource impacts (on views, sand supply, public access, etc.). The area within 100 feet of the blufftop edge is to be protected and enhanced through removal of non-natives and invasives (like iceplant) and revegetation with native

[80] Note see CLRDP Policy 3.7 and related implementation measures.

bluff species.[81] Blufftop access facilities, like paths and overlooks, are to be relocated from time to time as necessary to ensure their proper function. All development is to be sited and designed to minimize the alteration of natural landforms.[82]

C. Coastal Act Consistency Analysis

1. Coastal Hazard Context

The terrace portion of the site, within which development is currently sited and within which development pursuant to the CLRDP is envisioned, is a relatively flat marine terrace that slopes almost imperceptibly to the south (towards the ocean) where it drops sharply about forty feet to the rocky intertidal area and the Pacific Ocean at the blufftop's edge. The Campus site is currently unarmored. According to the University's geotechnical analysis, the estimated average long-term rate of retreat is estimated to be less than 0.5 feet/year.[83] The University also points to the barometer established by the mast of the La Feliz, a ship that wrecked just offshore in 1924. According to the University, the mast has been leaning against the cliff edge in a near vertical position directly in front of the Discovery Center location for over 75 years. A resistant bedrock platform at the base of the bluffs appears to have provided significant protection to the Campus over the years.

Other than the Campus seawater facilities and the public access overlook near the bluff edge, all Campus facilities are at least 100 feet inland from the coastal bluff edge at this time – and most are significantly further inland than that (see existing facilities site plan in Exhibit C). Using the University's 0.5 feet per year of estimated rate of long term retreat, these (other than immediate shoreline) Campus facilities would not be initially undermined for an estimated 200 years.

Although bluff retreat is often expressed in feet or centimeters per year, erosion usually occurs in episodes that correspond with significant coastal storm events. Estimated long-term average annual erosion rates are thus most useful when they are based on reliable historical data over long periods of time; time frames of adequate length so as to "correct" and account for such episodic events. Even then, they are of limited use for quantifying the degree of safety for a site, and not well-suited to estimate erosion over short time intervals. Rather, such erosion rate figures must be understood in relation to the geologic structure and configuration of the bluff, and the potential for failure of portions of the bluff in episodic events as well as more steadily over the long term. Oftentimes, episodic erosion and the degree to which development at certain locations may be at risk are best understood by evaluating the largest potential episodic bluff failure events, the likelihood of such events, and the proximity of structures to areas likely to experience such events. In other cases (or in tandem), a quantitative slope stability analysis can help describe risks in terms of bluff stability, potential failure planes, and minimum factors of safety.

In sum, there is a certain amount of risk in maintaining development along a California coastline that is

[81] See also Appendix A, Resource Management Plan, for blufftop enhancement provisions.

[82] See also Implementation Measure 4.2.2.

[83] Foxx, Nielsen, 1992.

actively eroding and can be directly subject to violent storms, large waves, flooding, earthquakes, and other hazards. These risks can be exacerbated by such factors as sea level rise and localized geography that can focus storm energy at particular stretches of coastline. As a result, some would say that all development along the immediate California coastline is in a certain amount of "danger," and includes a certain amount of "risk." Campus development is mostly well inland from the bluff edge, other than the Marine Discovery Center that is about 100 feet inland of the bluff edge and the seawater system that is at the bluff/ocean interface (see Figure 3.9). It will likely be some time before Campus development currently present on the site is threatened by shoreline erosion, but that is not a certainty.

2. Currently Existing Structures

For the purposes of shoreline protective structures, the Coastal Act distinguishes between development that is allowed shoreline armoring, and development that is not. Under Section 30253, new development is to be designed, sited, and built to allow the natural process of erosion to occur without creating a need for a shoreline protective device. Coastal development permittees for new shorefront development are thus making a commitment to the public (through the approved action of the Commission, and its local government counterparts) that, in return for building their project, the public will not lose public beach access, offshore recreational access, sand supply, visual resources, and natural landforms, and that the public will not be held responsible for any future stability problems. In other words, coastal zone development approved and constructed since the Coastal Act should not require shoreline protection in order to "assure stability and structural integrity" because it was constructed with adequate setbacks and/or other measures in order to negate the need for future armoring.

Related to Section 30253, Coastal Act Section 30235 allows for shoreline protection in certain circumstances (if warranted and otherwise consistent with Coastal Act policies) for "existing" structures. One class of "existing structures" refers to those structures in place prior to the effective date of the Coastal Act. Coastal zone development approved and constructed prior to when the Coastal Act went into effect was not subject to Section 30253 requirements. Although some local hazard policies may have been in effect prior to the Coastal Act, these pre-Coastal Act structures have not necessarily been built in such a way as to avoid the future need for shoreline protection (in contrast to those evaluated pursuant to Section 30253). Accordingly, Coastal Act 30235 allows for shoreline protection to be considered for these types of existing structures, where "existing" means it was permitted development prior to the Coastal Act.

In a limited number of cases, the Commission has required applicants for new blufftop structures to waive any right to a seawall that may exist pursuant to Section 30235. In other words, applicants have stipulated that future armoring is prohibited, notwithstanding 30235, because the structures have been sited and designed to not need shoreline armoring in the future (pursuant to Section 30253). Such was the case at the Marine Science Campus in relation to the Ocean Heath building approved by the Commission in 1999.[84]

In addition, the Commission has generally interpreted Section 30235 to apply only to existing principal

[84] CDP 3-83-076-A13

structures. The Commission must always consider the specifics of each individual project, but has generally found that accessory structures (such as patios, decks, gazebos, stairways, etc.) are not required to be protected under Section 30235, or can be protected from erosion by relocation or other means that do not involve shoreline armoring. The Commission has generally historically permitted at grade structures within geologic setback areas recognizing that they are expendable and capable of being removed rather than requiring a protective device that would alter natural landforms and processes along bluffs, cliffs, and beaches.

All structures at the Campus have been approved and permitted in the time since the Coastal Act has been in effect. In each case, development was found consistent with Section 30253 inasmuch as no further shoreline protection would be required in the future. To date, there have been no requests for major shoreline armoring at the Campus.[85] The CLRDP provides that shoreline armoring can only be considered to protect currently existing structures (at the time of CLRDP certification) at the site, and can only be allowed if: (a) less-environmentally damaging alternatives to armoring are not feasible (including relocation of endangered structures); and (b) the armoring has been sited, designed, and accompanied by feasible measures to proportionately mitigate any unavoidable negative coastal resource impacts (on views, sand supply, public access, etc.) (see CLRDP Implementation Measure 3.7.3). These policies should serve to severely limit, if not outright avoid, the need for armoring in the immediate future, and can be found consistent with Coastal Act Section 30235.

3. Potential New Structures

In terms of potential new structures to be constructed post-CLRDP certification, the CLRDP effectively addresses the coastal hazard uncertainty associated with development along a shoreline location. In this case, it prohibits most all development within 100 feet of the bluff edge, requires new development to be sited and designed to negate the need for armoring over its lifetime, including requiring movement to a more inland location as an alternative to shoreline armoring. It also requires the blufftop area to be restored to native bluff species. In other words, any development authorized by the CLRDP will, by CLRDP requirement, not require shoreline armoring in the future (see CLRDP Implementation Measures 3.7.1 and 3.7.2). These CLRDP requirements should effectively implement the Coastal Act in this respect.

Nevertheless, there are two areas where modifications are necessary to ensure that the CLRDP reflects the Coastal Act in this respect. First, the description of coastal hazards need to account for the inherent uncertainly associated with risk assessment at a coastal site, as described in the above finding (e.g., modification to Section 3.4). Second, CLRDP figures currently only map a subset of the 100-foot setback area, and this designation needs to be expanded so that it covers the entirety of the 100-foot area inland from the edge of the coastal bluff onto the terrace portion of the site (e.g., see modifications to Figures 3.9 and 5.2, etc.)

D. Hazards Conclusion

[85] Other than to the extent that seawater system components and overlook retaining walls are considered armoring.

With the modifications identified above, the CLRDP effectively translates Coastal Act coastal hazards provisions to the Campus site. The effect should be that development is sited and designed to respect coastal hazard constraints, and to not need shoreline armoring in the future. The end result is expected to be that the unarmored natural shoreline at the Campus will largely remain in its natural state, that natural landforms will be left alone, that structures will be moved inland as erosion dictates, and that only structures which must be in the shoreline-water interface (such as the seawater intake lines) will be located along the shoreline. The Commission finds the CLRDP, if modified, consistent with Sections 30235 and 30253 of the Coastal Act.

6. Cultural Resources

This section details the manner in which cultural resources would be protected, including detailing the CLRDP requirements for consultation and mitigation requirements.

A. Applicable Policies

Coastal Act Section 30244 states:

> ***Section 30244.*** *Where development would adversely impact archaeological or paleontological resources as identified by the State Historic Preservation Officer, reasonable mitigation measures shall be required.*

Thus, it is important to note that the Coastal Act doesn't require that such resources necessarily be preserved, rather that impacts to such resources be mitigated. This is a substantially different concept than that articulated by the Act for others types of resources where impacts themselves are to be avoided (e.g., ESHA), and has translated statewide into a range of LCP policies reflective of the Act and local concerns (some more protective) in this respect.

B. Applicable Provisions of Proposed CLRDP

CLRDP Policy 3.9, Conservation of Cultural Resources states:

> *Reasonable mitigation measures shall be required, including those that may be identified through consultation with appropriate Native American representatives, where development would adversely impact archaeological and/or paleontological resources.*

Implementation Measure 3.9.1 states:

> *Implementation Measure 3.9.1 -- Construction Monitoring. Should archaeological and/or paleontological resources be encountered during any construction on the Marine Science Campus, all activity that could damage or destroy these resources shall be temporarily suspended until qualified archaeologist/paleontologists and Native American representatives have examined the site and mitigation measures have been developed that address and proportionately offset the impacts of the project on archaeological and/or paleontological resources. Development shall incorporate measures to address issues and impacts identified*

through any archaeologist/paleontologist and/or Native American consultation.

Thus, the CLRDP requires consultation with qualified archaeologist/paleontologists and Native American representatives, and requires mitigation if any archaeological and/or paleontological resources are encountered during any construction on the Campus.

C. Coastal Act Consistency Analysis

As summarized in the project EIR, the project site lies within the ethnographic territory of the Ohlone Indians and the currently recognized ethnographic territory of the Costanoan linguistic group. According to the University, though, the proposed Marine Science Campus site has "low archeological sensitivity" and thus proposed development is not "constrained in this regard." As described in the CLRDP:

> *An archaeological study and field reconnaissance conducted on the site in conjunction with the previously proposed Westside Lands Plan found no indications of cultural resources on the Marine Science Campus (ACRS, 1985) although a potential prehistoric resource was identified on the upper terrace area. Subsequent surveys found no indications of prehistoric or other cultural resources. In 2000 an updated records search of the entire property and a field reconnaissance of the Younger Lagoon Reserve also found no prehistoric or historic archaeological resources on the site. Comments in the public record have noted a 1924 shipwreck, the La Feliz, lies offshore of the site. The Seymour Marine Discovery Center has incorporated an interpretive display that includes the ship mast of the La Feliz.*
>
> *Sensitive paleontological resources are identified along the coastline, from Younger Lagoon to approximately Monterey Street near Cowell Beach. The Santa Cruz mudstone that composes the majority of the seacliff face on the Marine Science Campus, however, contains few fossils. (Strelow, 1997).*
>
> *There are no known cultural resources on the Marine Science Campus, and therefore development is not constrained in this regard. Nonetheless, La Feliz ship mast should continue to be preserved for the education and enjoyment of future generations. If currently unknown cultural resources are discovered during the course of developing the terrace portion of the site, development activity will have to be regulated to ensure no adverse impacts on any such resources.*[86]

Notwithstanding the stated low potential for adverse impacts to cultural resources, there is still a potential for discovery of cultural resources as new developments move forward in areas that have not previously been developed beyond agricultural activities. As described in the EIR for the CLRDP:

> *Although some of the native soils and subsoils on the project site have been disturbed by excavation and earth moving during previous development, . . . areas of undisturbed native soils and rock are present on the site. Construction of the proposed project could result in disruption or adverse effects to unknown archeological resources or human remains due to land alteration*

[86] CLRDP, III-21.

activities such as land clearing, grading, driving heavy vehicles, soil compacting, excavation, and landscaping….

Archeological surveys and previous construction projects on the project site and vicinity have not resulted in the discovery of any human remains. Nevertheless, during the construction phase of the any development project under the CLRDP, it is possible that previously undiscovered human remains could be unearthed. The development program has the potential to result in a significant adverse impact on previously undiscovered human remains….[87]

Construction monitoring, followed by identification of mitigation measures if resources are found, is a standard approach for addressing the need to protect cultural resources. In recent years, though, it has become clear to the Commission and others that consultation with qualified archaeologists needs to be supplemented with consultation with appropriate Native American representatives to assure the identification of reasonable mitigation measures that will adequately protect cultural resources in a matter more sensitive to the associated Native American communities than might otherwise be the case. This is particularly true where there is a potential for the discovery of human remains. To address this concern, the EIR for the CLRDP identifies consultation with Native Americans, through the established processes of the Native American Heritage Commission, as a project-specific mitigation measure to assure that potential impacts to cultural resources are reduced to a less than significant level and is incorporated into the policies and implementation measure of the CLRDP.

The CLRDP has accounted for appropriate cultural resource consultation and mitigation requirements through construction monitoring. Such monitoring (and associated consultation etc.) should ensure that any impacts to cultural resources, if found, are mitigated consistent with the Coastal Act. The Commission finds the CLRDP consistent with Section 30244 of the Coastal Act.

7. CLRDP Procedures

This section describes the way in which the CLRDP would be applied overall and to specific proposed development projects, including the Commission's oversight responsibilities.

A. Applicable Policies

Coastal Act Sections 30605 and 30606 describe CLRDPs and outline the procedures for implementing the CLRDP. The pertinent provisions follow:

Section 30605*. …Where a [CLRDP]…has been certified by the commission, any subsequent review by the commission of a specific project contained in the certified plan shall be limited to imposing conditions consistent with Sections 30607 and 30607.1.*

Section 30606. *Prior to the commencement of any development pursuant to Section 30605, the …state university…, shall notify the commission and other interested persons, organizations,*

[87] CLRDP EIR pp. 4.5-7 - 4.5-8.

and governmental agencies of the impending development and provide data to show that it is consistent with the certified [CLRDP]. No development shall take place within 30 working days after the notice.

Section 30607, cited by Section 30605, indicates that CLRDP development projects may be subject to terms and conditions. Section 30607 states as follows:[88]

Any permit that is issued or any development or action approved on appeal, pursuant to this chapter, shall be subject to reasonable terms and conditions in order to ensure that such development or action will be in accordance with the provisions of this division.

In addition to these Coastal Act sections, several sections of the Commission's regulations (i.e., Title 14, Division 5.5 of the California Code of Regulations) (CCR) amplify these basic requirements. Section 13548 identifies that coastal development permits are not required for CLRDP development pursuant to a certified plan, and identifies the University noticing requirements in this respect:

CCR Section 13548. Effect of Final Certification of [C]LRDP. *After certification of the [C]LRDP for an educational facility has become final, the governing authority may undertake or authorize any development project for such educational facility within the coastal zone without a coastal development permit obtained pursuant to Sections 13050 to 13173 if:*

(1) the governing authority provides timely notice of the impending development as provided in Section 13549, and

(2) the proposed development is found to be consistent with the certified LRDP pursuant to Section 13550.

If the Commission fails to act upon the notice of the impending development within thirty (30) days after the notice is filed in the office of the Commission, the development is deemed consistent with the certified [C]LRDP.

CCR Section 13549 identifies the basic parameters that apply to Commission review of such noticed CLRDP development projects. CCR Section 13549 states:

CCR Section 13549. Notice of the Impending Development.

(a) At least thirty (30) days prior to beginning construction for any development, the governing authority shall notify in writing the following parties of the nature and location of the impending development: the Commission, contiguous local governments, owners of each parcel of record within 100 feet of the proposed development, persons residing within 100 feet of the proposed development, and all other interested persons and agencies who have requested such notice. The governing authority shall post conspicuous notice of such impending development at the

[88] Coastal Act Section 30607.1, also cited by Section 30605, specifically describes parameters for filling wetlands if in conformity to the allowed fill purposes specified in the Act (e.g., Section 30233). However, the CLRDP does not allow for wetland fill, and this Section is not explicitly applicable to it.

proposed site. Notice to the Commission, and interested persons and agencies who have so requested shall be accompanied by sufficient supporting information to allow determination of whether such development is consistent with the certified [C]LRDP.

(b) Within ten (10) days of the receipt of a notice of the impending development, the executive director shall review the notice. If there is insufficient supporting information to determine whether the proposed development is consistent with the certified [C]LRDP, the executive director shall inform the governing authority of what further information is needed to make such determination. The notice shall be deemed filed when all necessary supporting information has been received by the executive director.

(c) No construction shall commence until at least thirty (30) days after the notice is filed in the office of the Commission.

(d) This section shall not apply to those development projects defined pursuant to Section 13511(g).

CCR Section 13511(g), referenced above in terms of those developments for which the Commission review procedures won't apply, states:

Section 13511(g). *With regard to [C]LRDPs, the governing authority may propose in the [C]LRDP those categories of development for which no coastal development permit is required pursuant to Public Resources Code Section 30610, and those categories of development within specifically defined geographic areas for which there is no potential for adverse effects, either individually or cumulatively, on coastal resources or on public access to or along the coast. After certification of the [C]LRDP, categories of development defined pursuant to this subsection will not be subject to the procedures specified in Sections 13549 and 13550 requiring notice of the impending development and allowing Commission review of such proposed development projects.*

Section 30610 of the Coastal Act, referenced by CCR Section 13511(g), identifies the types of development for which coastal development permits aren't required pursuant to the Act. Section 30610:

Section 30610. *Notwithstanding any other provision of this division, no coastal development permit shall be required pursuant to this chapter for the following types of development and in the following areas:*

(a) Improvements to existing single-family residences; provided, however, that the commission shall specify, by regulation, those classes of development which involve a risk of adverse environmental effect and shall require that a coastal development permit be obtained pursuant to this chapter.

(b) Improvements to any structure other than a single-family residence or a public works facility; provided, however, that the commission shall specify, by regulation, those types of improvements which (1) involve a risk of adverse environmental effect, (2) adversely affect

public access, or (3) involve a change in use contrary to any policy of this division. Any improvement so specified by the commission shall require a coastal development permit.

(c) Maintenance dredging of existing navigation channels or moving dredged material from those channels to a disposal area outside the coastal zone, pursuant to a permit from the United States Army Corps of Engineers.

(d) Repair or maintenance activities that do not result in an addition to, or enlargement or expansion of, the object of those repair or maintenance activities; provided, however, that if the commission determines that certain extraordinary methods of repair and maintenance involve a risk of substantial adverse environmental impact, it shall, by regulation, require that a permit be obtained pursuant to this chapter.

(e) Any category of development, or any category of development within a specifically defined geographic area, that the commission, after public hearing, and by two-thirds vote of its appointed members, has described or identified and with respect to which the commission has found that there is no potential for any significant adverse effect, either individually or cumulatively, on coastal resources or on public access to, or along, the coast and, where the exclusion precedes certification of the applicable local coastal program, that the exclusion will not impair the ability of local government to prepare a local coastal program.

(f) The installation, testing, and placement in service or the replacement of any necessary utility connection between an existing service facility and any development approved pursuant to this division; provided, however, that the commission may, where necessary, require reasonable conditions to mitigate any adverse impacts on coastal resources, including scenic resources.

(g) (1) The replacement of any structure, other than a public works facility, destroyed by a disaster. The replacement structure shall conform to applicable existing zoning requirements, shall be for the same use as the destroyed structure, shall not exceed either the floor area, height, or bulk of the destroyed structure by more than 10 percent, and shall be sited in the same location on the affected property as the destroyed structure.

(2) As used in this subdivision: (A) "Disaster" means any situation in which the force or forces which destroyed the structure to be replaced were beyond the control of its owner. (B) "Bulk" means total interior cubic volume as measured from the exterior surface of the structure. (C) "Structure" includes landscaping and any erosion control structure or device which is similar to that which existed prior to the occurrence of the disaster.

(h) Any activity anywhere in the coastal zone that involves the conversion of any existing multiple-unit residential structure to a time-share project, estate, or use, as defined in Section 11003.5 of the Business and Professions Code. If any improvement to an existing structure is otherwise exempt from the permit requirements of this division, no coastal development permit shall be required for that improvement on the basis that it is to be made in connection with any conversion exempt pursuant to this subdivision. The division of a multiple-unit residential

structure into condominiums, as defined in Section 783 of the Civil Code, shall not be considered a time-share project, estate, or use for purposes of this subdivision.

(i) (1) Any proposed development which the executive director finds to be a temporary event which does not have any significant adverse impact upon coastal resources within the meaning of guidelines adopted pursuant to this subdivision by the commission. The commission shall, after public hearing, adopt guidelines to implement this subdivision to assist local governments and persons planning temporary events in complying with this division by specifying the standards which the executive director shall use in determining whether a temporary event is excluded from permit requirements pursuant to this subdivision. The guidelines adopted pursuant to this subdivision shall be exempt from the review of the Office of Administrative Law and from the requirements of Chapter 3.5 (commencing with Section 11340) of Part 1 of Division 3 of Title 2 of the Government Code.

(2) Exclusion or waiver from the coastal development permit requirements of this division pursuant to this subdivision does not diminish, waive, or otherwise prevent the commission from asserting and exercising its coastal development permit jurisdiction over any temporary event at any time if the commission determines that the exercise of its jurisdiction is necessary to implement the coastal resource protection policies of Chapter 3 (commencing with Section 30200).

Several of the development types identified in Section 30610 are further elaborated by the regulations, as contemplated by Section 30610, including CCR Sections 13250 (Improvements to Existing Single-Family Residences), 13252 (Repair and Maintenance Activities Requiring a Permit), and 13253 ((Improvements to Structures other than Single-Family Residences and Public Works Facilities that Require Permits). These CCR sections identify the subset of the types of development listed in Section 30610 that do require a permit notwithstanding the general direction of Section 30610.

Finally, CCR Section 13550 identifies the provisions for Commission review of CLRDP development. CCR Section 13550 states:

CCR Section 13550. Commission Review of Development Projects.

(a) Categories of development defined in a certified [C]LRDP pursuant to Section 13511(g) shall not be reviewable by the Commission.

(b) Within thirty (30) days after the filing of the notice of the impending development, the executive director shall report in writing to the Commission the pendency of the proposed development. The report shall include a description sufficient to allow the Commission to understand the location, nature, and extent of the proposed development, and a discussion and recommendation regarding the consistency of the proposed development with the certified [C]LRDP. Copies of the report shall be available at the meeting and, if possible within the time available, shall have been mailed to the Commission, the governing authority and those persons known by the executive director to be interested in receiving such notification.

(c) Proposed developments which in the opinion of the executive director of the Commission are de minimis with respect to the purposes and provisions of the certified [C]LRDP may be scheduled for Commission review at one public hearing during which all such items may be taken up as a single matter. This procedure shall be known as the Consent Calendar. The procedures governing such Consent Calendar shall be comparable to the procedures set forth in Sections 13101-13103.

(d) Within thirty (30) days of the filing of the notice and after a public hearing the Commission shall, by a majority of its membership present, determine whether the proposed development is consistent with the certified [C]LRDP and whether conditions are required in accordance with the provisions of Public Resources Code Sections 30605-30607 and 30607.1. If the Commission determines that conditions are required to render the proposed development consistent with the certified [C]LRDP, the Commission shall schedule a public hearing on the proposed conditions no later than twenty-one (21) days after the close of the hearing that determined consistency with the [C]LRDP. No construction shall commence until after the Commission votes to impose any condition necessary to render the proposed development consistent with the certified [C]LRDP. The hearing procedures governing the Commission's determinations pursuant to this subsection shall be in conformance with Section 13064-13096.

In sum, and as detailed in the beginning of this report, the Act and the Commission's regulations contemplate that state universities like UCSC may propose and the Commission may certify CLRDPs that provide a blueprint for development of Campus educational facilities. Development of such projects is then subject to a different noticing and review procedure than coastal development permits, including that the Commission's review is generally more limited than with coastal permits. The concept is to frontload review of potential Campus development in an overall plan that then allows for streamlined review of individual projects for consistency with the development parameters identified in the plan. Inherent in this concept is the idea that the plan will provide the necessary level of specificity to allow for this consistency determination to proceed. Toward this end, Coastal Act Section 30605 explicitly refers not to development more generally, but rather to "review by the commission of a specific project contained in the certified plan." In other words, the streamlined review is in part due to the certainty to be certified into the plan, including detailed specifications on projects as opposed to development more generally per se. That said, the Commission's regulations also define a coastal LRDP as akin to a Land Use Plan of an LCP – i.e., identifying types, locations, and intensities of development, albeit with certain specific requirements. Thus, CCR Section 13511(b) states:

With regard to [C]LRDPs, the level and pattern of development selected by the governing authority shall be reflected in a long range land use development plan. The [C]LRDP shall include measures necessary to achieve conformity with the policies of Chapter 3 of the California Coastal Act of 1976. Any plan submitted pursuant to this subchapter shall contain sufficient information regarding the kind, size, intensity and location of development activity intended to be undertaken pursuant to the plan to determine conformity with the policies of Chapter 3 of the Coastal Act. Such information shall include, but is not limited to the following: (1) the specific type of development activity or activities proposed to be undertaken; (2) the

> *maximum and minimum intensity of such activity or activities (e.g., number of residents, capacity and service area of public works facility, etc.); (3) the proposed and alternative locations considered by any development activities to be undertaken pursuant to the [C]LRDP; (4) a capital improvement program or other scheduling or implementing devices that govern the implementation of the [C]LRDP; and (5) other information deemed necessary by the executive director of the Commission.*

Finally, certain categories of development projects can be excluded from the noticing and Commission review parameters that typically apply by virtue of CCR Section 13511(g). In sum, both the Act and the implementing sections of the Code of Regulations must be read together to ensure CLRDP procedural consistency.

B. Applicable Provisions of Proposed CLRDP

The CLRDP's procedural parameters are mostly contained in Chapter 8. Chapter 8 is supplemented by Chapter 5 in places (such as Section 5.1, Application of the Long Range Land Use Development Plan), by Chapter 9 (Capital Improvement Program) overall, and by a myriad of other provisions throughout the CLRDP that include procedural components. That said, the bulk of CLRDP procedures are found in Chapter 8. In sum, the CLRDP procedures identify a process whereby the Campus Planning Director will prepare project reports on proposed development projects for consideration by the UC Regents who can authorize such projects subject to certain authorization criteria. Once authorized by the Regents, the University will notice various parties, including the Commission, of the impending development by means of the previously described "Notice of Impending Development" (or NOID). The Commission will then have an opportunity to review the proposed development project for consistency with the certified CLRDP.[89] The CLRDP also includes a series of development project categories that would be excluded from the typical NOID development review process, including certain types of repairs, maintenance, and improvements on the Campus (see proposed CLRDP Section 8.3); standards for amendments to previously approved (both pre- and post-CLRDP certification) Campus development (CLRDP Section 8.5); identification of expiration and effective dates for CLRDP authorizations (CLRDP Section 8.6); details regarding the Commission's retained coastal permitting jurisdiction (CLRDP Section 8.7); specifications for University monitoring of CLRDP development over time (CLRDP Section 8.8); a description of enforcement parameters (CLRDP Section 8.9); and parameters for emergency CLRDP authorizations (CLRDP Section 8.10).

C. Coastal Act Consistency Analysis

Historically, initial development of LCPs (and CLRDPs) has tended to deemphasize the procedural aspects in relation to other substantive portions of these documents. For better or worse, procedural measures were often limited in scope and detail, and much of the general day-to-day implementation provisions were left fairly broad and general. Although such a methodology can certainly function, the Commission's experience has been that such procedural deficiencies, particularly in older plans, has caused inefficiencies and administrative problems. In recent times, the Commission has taken to looking

[89] See CLRDP Sections 8.1 and 8.2.

much more closely at procedural aspects of plans, with an eye towards applying the working knowledge gained from three decades of coastal permitting decisions, including in certified jurisdictions, to the procedural aspect of them. With a CLRDP where, as previously described, the provisions must be much more detailed than an LCP, such procedural efficiency and clarity is particularly relevant; the lack of clarity can lead much more directly to unforeseen coastal resource impacts. As a result, it is particularly important that the CLRDP's implementing procedures are workable and thorough.

The CLRDP is generally clear with respect to its procedures, and generally follows the parameters established by the above-listed sections of the Regulations and the Coastal Act. Nevertheless, there remain a series of minor and major Coastal Act inconsistencies with the CLRDP as proposed, including procedures that are inadequate and/or incomplete, that require modifications. These include the following:[90]

1. Determining Development Consistency

Section 5.1 describes the proposed CLRDP process for determining development consistency as follows:

> *Policy 1.1, Development Consistency. Development shall be deemed consistent with the CLRDP if (1) it is consistent with the provisions of Chapters 5 and 6, (2) applies the building and site plan concepts reflected in the illustrative plans of chap 7, and (3) implements the provisions of Chapter 9 and Appendices A and B.*

As proposed, this policy is too narrow for ensuring development project consistency and coastal resource protection, and risks confusion in the future. Chapters 1 through 4 of the LRDP are essentially background material and discussion of broad objectives for the Marine Science Campus. Thus, it is acceptable if these chapters are not considered to be "standards of review" per se for future development.[91] All other chapters, though, contain important substantive and procedural requirements, including policies, implementation measures, design guidelines, capital improvement schedules, resource management performance measures, etc. As written, the policy is potentially confusing by not simply stating a straight-forward requirement that development projects must be consistent with remaining chapters, including Chapter 8 procedural requirements, and the appendices, which encompass the detailed resource management and drainage plan requirements. Calling out different concepts such as "applying building concepts" and "implementing provisions" is not necessary and could suggest that this is something other than being consistent with these chapters and appendices. The nature of the requirements in these sections of the CLRDP by themselves establish what may have to be done in order to be consistent. For example, by definition the site plan of Chapter 7 is only an illustrative plan. The Commission is certifying a whole CLRDP. Other than the introductory chapters, future development should be evaluated for consistency against the CLRDP as a whole, and not only sub-sections of it, and not only certain aspects of such sub-sections. The document – the whole document – is meant to be and must function as a coherent plan. Modifications are suggested to change this policy so that development

[90] For cited modifications, see Exhibit E (modifications in cross-through and underline within the proposed CLRDP text).

[91] Although they contain relevant and important contextual and background information, and are a part of the CLRDP as well.

consistency means consistency with Chapters 5 through 9, and the appendices,[92] of the CLRDP.

Related to the process of determining CLRDP consistency, Implementation Measure 1.1.1 goes on to indicate as follows:

> *Implementation Measure 1.1.1 – Diagrams of Chapter 5 Control. With respect to the development, maintenance, and use of the Marine Science Campus, the diagrams of Chapter 5 are definitive and have controlling effect in the interpretation and application of the narrative and diagrams of Chapter 4 and of the narrative and policy elements of Chapter 5, excepting the provisions of the Building Program shown in Figures 5.1 and 5.3, which are definitive.*

In a similar manner, such an implementing measure is too narrow and confusing. It is true that the diagrams are controlling, but it is equally true that other portions of the CLRDP are controlling too. It is inappropriate to insert a hierarchy such as this proposed that may be used to narrowly apply the CLRDP as opposed to broadly applying the entire certified document to review of development projects. Modifications are suggested to delete this policy entirely.

Finally, the concept embedded in Coastal Act Section 30605 is that measuring development project consistency presumes that a development project is contained in the plan. In other words, Coastal Act Section 30605 clearly articulates a premise that CLRDPs identify a certain universe of specific projects for which future consistency may be determined (subject to notice and Commission oversight). Inherent in this concept is that if a development project is not contained in the plan, then it is not a project that can be authorized by the NOID process. In other words, a project that is not contained in the plan requires a CLRDP amendment prior to its being considered. The CLRDP appears to attempt to address this concept in Section 8.4.C.3 where it indicates that the Commission can find a development project inconsistent with the CLRDP, and further provides that such development cannot proceed. In this respect, the CLRDP effectuates this concept in the form of a de facto denial. Inasmuch as the Act and the Commission's regulations do not expressly provide for denial, and instead articulate the premise that the plan contains the development projects that are allowed to be authorized through the NOID process, modifications are necessary to indicate that development projects can only be accepted for processing as the subject of an NOID if they are contained in the certified plan (see modifications to Policy 1.1 and Sections 8.1.D.5(d) and 8.4.C.3 in this respect). In making this change, the Commission notes that the CLRDP includes multiple instances where text describes "consistency with the CLRDP" requirements. As opposed to changing every such instance to include the "contained in" language, the Commission has included such language in the primary sections where this concept is referenced in relation to CLRDP authorizations. That being said, the Commission notes that by this modification to these sections, and by extension inherent in the concept of consistency, consistency with the CLRDP is understood to mean that a development project is also "contained in" the CLRDP.

[92] Other than Appendix C inasmuch as Appendix C simply represents a copy of an existing indemnification/hold-harmless agreement and doesn't include any measurable CLRDP requirements of itself. Implementation measure 3.8.2 of Chapter 5 requires future required agreements to be similar to the agreement shown in Appendix C.

2. Development Project

The CLRDP mostly articulates the concept identified in Section 30605 that a Notice of Impending Development (NOID) and limited Commission review applies to specific development projects contained in the CLRDP. There remain a series of places throughout the document, though, that refer to "development" or "project" somewhat interchangeably. Pursuant to Section 30605, the CLRDP must be clear that it applies to specific development projects in the plan, as opposed to development more generally. Modifications are suggested to ensure that this is the case, including modifications throughout the document (see suggested modifications), modifications to the definition of "development project" in Chapter 8, and modifications throughout Chapter 8 specifically designed to articulate this 30605 concept and maintain consistent terminology.

3. "Authorize" versus "Approve"

The document uses the terms "authorizing" development projects and "approving" development projects somewhat interchangeably. According to the University, the term they prefer is "authorize," and this is the terminology embraced by the Commission' regulations. Modifications are included to clarify that "authorizing" is the terminology of the CLRDP, including modifications throughout the document (see suggested modifications) and modifications throughout Chapter 8 specifically designed to articulate this concept and maintain consistent terminology.

4. Development Projects Excluded From CLRDP Noticing and Commission Review

The CLRDP includes a section detailing the categories of development projects identified pursuant to CCR Section 13511(g) that will not be subject to the procedures specified in CCR Sections 13549 and 13550 requiring notice of the impending development and allowing Commission review of such proposed development projects (see proposed CLRDP exclusion section (Section 8.3) in Exhibit E). Development projects that meet the exclusion tests would not be subject to the typical CLRDP review process. Specifically, such projects would not be publicly noticed and would not be reviewable by the Commission. As the University has articulated, the exclusion section text emanates from Coastal Act Section 30610 and the regulations related to it cited above (for repair and maintenance, minor improvements, etc.). It is particularly important that the exclusion section be correct. The CLRDP as a whole already limits Commission review. In addition, the Coastal Act and Commission regulations with respect to development that doesn't require a permit (from which the exclusion text originates) is complex and subject to multiple layers of "tests" for verifying excludability. Further, the tests that would be evaluated by the University are without any explicitly identified procedures for the Commission or others to verify excludability, including any provisions for public or Commission challenges of an excludability determination. Suggested modifications are discussed below.

Maintaining Consistency with the CLRDP

The Coastal Act clearly contemplates that certain types of development won't require coastal permit review, and the Commission's regulations elaborate on that concept. For CLRDPs, that concept is extended to University's via Section 13511(g), cited above. At the most basic level, then, the University is simply extending the categories of development not requiring a permit to the CLRDP in terms of its equivalent concepts. There are some nuances, though, that must be addressed. Coastal Act Section

30605 clearly articulates a premise that CLRDPs identify a certain universe of specific projects, and CCR Section 13511 further requires that maximum intensities and implementation schedules (such as for capital improvements) be identified. CCR Section 13511(g) then specifically excludes certain categories of development in the CLRDP from the noticing and Commission review procedures of CCR Section 13549 and 13550 (and not from other CLRDP provisions). Thus, proposed exclusions must be understood relative to the certified CLRDP as a detailed and specific application of the Coastal Act's resource protective policies to a particular fact set, including a very specific land area, from which is authorized a series of appropriate development projects. These projects cannot be understood in a vacuum away from the CLRDP parameters. For example, the proposed CLRDP includes a maximum height of 36 feet. This height limit was identified based on an analysis of what would be appropriate for the site in relation to the overall CLRDP and its buildout. If there was a Campus building at 36 feet in height, if that building met the other excludability tests as proposed (see also below), then the exclusion could potentially allow its height to be raised up to 10% (or 3.6 feet) without any notice or outside review. However, a building raised to nearly 40 feet would not be consistent with the CLRDP. Applied over the entire Campus (and to the extent the tests were met), the exclusion as proposed, if not clearly articulated, could allow for the CLRDP building program to be increased by 10% in that sense.

The Commission finds that the only way the CLRDP can be found consistent with the Coastal Act in this respect is to ensure that any so excluded development projects are provided for and consistent with the CLRDP (see modifications to introductory paragraph in Section 8.3). This clarification is needed to assure that all development, even if excluded from noticing and Commission review, is held to the requirements of the CLRDP. Given that the CLRDP articulates the University's objectives and intent with respect to the development of the Campus site, it is reasonable for the Commission to presume that such a change is amenable to the University.

Exclusion Determinations and the Commission

Proposed CLRDP Section 8.3 does not provide an explicit mechanism for the University to coordinate with the Commission to verify excludability, and does not include an explicit mechanism for the Commission or others to challenge an excludability determination. The University to date has not been willing to include such provisions notwithstanding staff requests to this effect. Partially this is a result of the Coastal Act and Regulations being unclear with respect to this determination as it applies to CLRDPs. In the equivalent LCP scenario, CCR Section 13569 provides a mechanism for challenging such determinations, including up to and including requiring Commission hearings to verify the correct determination. These CCR Section 13569 provisions are echoed in LCPs in many cases.[93] However, the applicability of CCR Section 13569 to CLRDPs is unclear.

The way that the CLRDP is currently structured in this regard seems counter-productive to its effective implementation. Without a procedural handle otherwise, a "challenge" to a CLRDP determination of excludability would be based upon: (a) the Commission finding out about a development project going forward that had been so excluded (whether through a report by the public, staff observation, or otherwise); and (b) verifying at that time whether it met the exclusion tests. If it didn't, then the

[93] For example, Section 13.20.085 of the Santa Cruz County LCP.

challenge would be one framed in enforcement, where the central assertion would be that the development required a NOID and Commission review process that never occurred contrary to the CLRDP. It is preferable, of course, that such a challenge occur before the time the development was underway, so as to avoid any potential resource impacts.

In this respect, a clear procedure would be in both the Commission's and the University's best interest. That said, the University is not supportive of such a procedure, and the regulations do not explicitly require it. As a means of striking a balance between the University's position and avoiding future implementation conflict, modifications are suggested to require that the University explicitly detail the rationale for such determinations, that these rationales be included with the record of exclusion that the University indicates will be maintained as described in Section 8.3, and that advance notice of anticipated excluded development activity be provided to the Commission and the public as feasible (see modifications to Section 8.3). Although not optimum, such provisions should help to ensure that CLRDP Section 8.3 is effectively applied with minimum conflict.

In addition, there are several other modifications necessary related to the exclusion noticing. First, Section 8.3 includes two different but similar paragraphs that reference the record of excluded development that would be maintained by the University. To avoid confusion in this respect, modifications are included to delete the first reference to this concept. Second, the paragraph incorrectly references to what the projects are excluded from, namely the noticing and Commission review provisions of the CLRDP (as previously discussed). Modifications are included to correct this error. Finally, for overall CLRDP implementation monitoring purposes, modifications are also provided to ensure that this exclusion record is included with the overall annual monitoring reports required by CLRDP Section 8.8.

Consistency of Terminology

CCR Section 13511(g) refers to categories of development, but the CLRDP vacillates between development and categories. Modifications are included to ensure that it is to "categories" that the exclusion text refers.

CCR References

The introductory paragraph in proposed CLRDP Section 8.3 includes references to multiple CCR sections in defining its authority. However, CCR Section 13511(g) is the basis for the exclusion categories. The other referenced sections refer to provisions that elaborate on Coastal Act Section 30610 with respect to development not requiring a coastal development permit. Although these sections are certainly related to the exclusion concept, including them is not entirely accurate without some form of explanation. Given that the applicable concepts from these CCR sections have been applied to the CLRDP exclusion section and articulated there, reference to them may only provide confusion inasmuch as they are similar in concept and construct to the exclusion section text, but not the same given that they are in references to Commission review of NOIDs (Section 13550) and to exclusion from coastal permit requirements. In order to ensure effective implementation without unnecessary and potentially confusing cross-referencing, modifications are included to delete these references.

Applicability of Exclusion

Proposed CLRDP Section 8.3 indicates that excluded projects would be excluded from Sections 8.1, 8.2, and 8.4 of the CLRDP. However, CCR Section 13511(g) specifically excludes these categories of development in the CLRDP from the noticing and Commission review procedures of CCR Section 13549 and 13550 (i.e., in the CLRDP, equivalent Sections 8.2 and 8.4), but not from other sections of the CLRDP. Specifically, CLRDP Section 8.1 provides important information applicable to understanding CLRDP development (including definitions, etc.), and it is a not appropriate or consistent with the Commission's regulations to exclude such development from this section. Modifications are provided to delete the reference to Section 8.1.

Utility Exclusion

CLRDP Section 8.3.A incorrectly applies the Coastal Act 30610 and related CCR text to this exclusion category, and thus includes a much broader exclusion than is supported by the Act and the Regulations. Specifically, the utility connection exclusion (from Section 30610(f)) and the referenced document "Repair, Maintenance and Utility Hook-up Exclusions from Permit Requirements" document (RMU document)[94] are structured so that utility connections are not reviewed twice. In other words, the exclusion is provided because presumably the utility connection/hook-up was reviewed when the development it was designed to serve was reviewed. As stated in the RMU document:

> *The utility hook-up exclusion exempts utilities from obtaining permits for work to serve developments because Commission review of such work is included in the review of the development itself.*

In addition, the Section 30610(f) text presumes that that original review has included conditions to mitigate any adverse impacts on coastal resources, including scenic resources (see 30610(f), previously cited). Thus, this exclusion applies because the subject utility connection/hook-up being excluded has been reviewed and conditioned to protect resources. Modifications are included to conform the language to that of the Act and the regulations.

Similarly, pursuant to CCR Section 13252, the utility hook-up activities specified in the RMU document are explicitly only excludable if they do not "have a risk of substantial adverse impact on public access, environmentally sensitive habitat area, wetlands, or public views to the ocean." In other words, only a subset of the RMU activities are so excluded. Modifications are included to conform the language to that of the Act and the regulations.

Improvement Exclusion

CLRDP Section 8.3.B identifies a series of improvements to facilities that would be included in this exclusion category. This exclusion emanates from CCR Sections 13250 (Improvements to Existing Single-Family Residences) and 13253 (Improvements to Structures other than Single-Family Residences

[94] The document entitled "Repair, Maintenance and Utility Hook-up Exclusions from Permit Requirements," adopted by the Coastal Commission on September 5, 1978 is explicitly referenced in CCR Section 13252 describing repair and maintenance activities that require a coastal development permit.

and Public Works Facilities that Require Permits). In most respects, this exclusion category mimics the text and tests of these CCR sections, which themselves are very similar. However, there are several ways in which it doesn't, and thus provides a much broader exclusion than that allowed by these CCR sections. Modifications are included to conform the language to that of Sections 13250 and 13253, including disqualifying exclusions for projects: located in a designated scenic view corridor, or within 50 feet of the edge of the coastal bluff; that include any removal or replacement of vegetation (and not just "significant" vegetation); that cumulatively exceed the 10% increase threshold; that include the expansion or construction of water wells or septic systems; that include the construction of any major water using development in the event the Commission has declared a critically short water supply; or that change the intensity of use of the structure being improved.[95] In addition, because Section 8.3.B does not apply to public works facilities (i.e., the same as the CCR improvements exclusions), a definition of public works is provided that conforms to the Coastal Act definition of public works (Section 30114) to ensure it is clear to what the CLRDP refers in this respect (see modification to Section 8.1.A).

Repair and Maintenance Exclusion

CLRDP Section 8.3.C identifies a series of repair and maintenance activities that would be included in this exclusion category. This exclusion emanates from CCR Sections 13252 (Repair and Maintenance Activities Requiring a Permit). In most respects, this exclusion category mimics the text and tests of CCR Section 13252. However, as with the exclusion categories described above, this category too includes several ways in which it doesn't map CCR text, and thus provides a much broader exclusion than that allowed by Section 13252. Modifications are included to conform the language to that of Section 13252, including disqualifying exclusions for repair or maintenance projects: that include placement of solid material on a shoreline protective work; that include the presence of mechanized construction equipment on any ESHA; that include dredging and disposal of dredge materials; that are described in the RMU document and that have a risk of substantial adverse impact on public access, environmentally sensitive habitat area, wetlands, or public views to the ocean.[96]

Disaster Exclusion

CLRDP Section 8.3.D identifies disaster replacement that would be included in this exclusion category. This exclusion emanates from Coastal Act Section 30610(g). In most respects, this exclusion category mimics the text and tests of Section 30610(g). However, as with the exclusion categories described above, this category too includes several ways in which it doesn't map Coastal Act text, and thus provides a broader exclusion than that allowed by Section 30610(g). Modifications are included to conform the language to that of Section 30610(g), including: clarifying that it is to disasters (and not "natural disasters") that the exclusion definition applies so as to avoid internal confusion; and specifying

[95] In all cases, the text for these modifications comes directly from the language of CCR Sections 13250 and 13253.

[96] In all cases, the text for these modifications comes directly from the language of CCR Section 13252, including the language disqualifying activities that have a "risk of substantial adverse impact on public access, environmentally sensitive habitat area, wetlands, or public views to the ocean."

that it is disaster beyond the control of the owner,[97] and not explicitly UCSC, to account for the case where a disaster is claimed for a lessee facility that is beyond the control of UCSC, but wasn't beyond the control of the lessee.

5. Point of Contact

The Commission's experience has been that it is critical to identify a point of contact, both for the general public and the Commission, for inquiries about day-to-day CLRDP implementation, individual projects, and monitoring over time. Without this designated person, it can be difficult to coordinate and difficult to ensure effective implementation over time. Modifications are suggested to designate the Campus Planning Director as the point of contact in this regard (and in line with how the University has structured the procedural section around the Planning Director in this sense).

6. Consistency With Prior Actions

The CLRDP refers in places to consistency with prior actions, but is limiting in this respect to prior Coastal Commission coastal permits (see for example Section 8.1.C), and limitations based on "prohibitions" associated with these prior actions (see for example Section 8.3). Three things are important to note here. First, prior Commission actions are not limited exclusively to coastal permits inasmuch as there have been coastal permits, coastal permit amendments, coastal permit waivers, and other related coastal development decisions (e.g., condition compliance). Thus, the limitation to "coastal permits" excludes a whole series of other actions that may also be pertinent. Second, reference to prohibitions emanating from them (as a means of evaluating if a potential CLRDP development project conflicts with this previous action) does not account for the fact that such previous actions may include prohibitions, may include other elements that lead to conflicts, may be based on things other than conditions (e.g., elements incorporated into project by reference in the project description), etc. More broadly, conflicts may emanate from any term or condition of a prior action. It is unlikely that a past action would include the forethought to explicitly prohibit some development or some portion of development identified in the certified CLRDP at a later date. It is much more likely that CLRDP project may include some aspect that is at conflict with a prior action, and the important concept is that that conflict is appropriately rectified. And third, although it is accurate that prior actions on the site at this point are limited to those of the Commission, and are limited to actions pursuant to the Coastal Act, that will not be the case once the CLRDP is certified and projects are authorized by the Commission and the University. Therefore, modifications are necessary to correct these deficiencies to reflect the reality of the range of past Commission actions, the fact that conflicts must be more generally evaluated (and not limited to some type of specifically identified prohibition), and that previous CLRDP authorizations need to also be understood in relation to a proposed development project.

7. Early Coordination

The CLRDP commits the University to early coordination with Commission staff as a means of identifying and resolving potential CLRDP consistency issues as soon as possible (see, for example, Sections 8.1.C.3 and 8.2.A). The Commission welcomes this approach, and believes that such early

[97] As is specified in Coastal Act Section 30610(g).

coordination is an absolute necessity, and the best means to avoid potential development project controversy and delay (e.g., in terms of exclusion determinations, as described above), whether such coordination is written into the CLRDP or not. The earliest coordination provided for in Chapter 8 (in Section 8.1.C.3) is mostly vague as to what it is encompasses and when it would occur. As a means of providing some meaning to such early coordination, modifications are included to specify that all public notices and documentation available pursuant to the Regents' required process for authorizing development projects on the Campus is provided to the Commission. In this way, and at a minimum, Commission staff would be brought into the process when the University began the process of bringing a proposed development project to the Regents.

In addition, it is acknowledged that the University has committed to providing advance notice of a NOID through a "'notice of intent" to submit a NOID that would be sent 30 days prior to the NOID being sent (see Section 8.2.A.). Although it is later on in the development process than the aforementioned early noticing procedure, this provision is also important for ensuring adequate coordination. In particular, it will allow for more rational scheduling of consistency review hearings for CLRDP development because such advance warning will help offset the fact that the Commission meets one time per month and agendas are set well ahead of that time. In other words, the standard NOID process can leave the Commission in a procedural quandary for reviewing CLRDP development projects. This can mean the Commission's hearing procedures are shortened, and public review and input is often made more difficult as a result. The notice of intent helps to alleviate that procedural difficulties by giving advance warning that allows an item in essence to be pre-scheduled. By extension, public participation can be maximized and the Commission review made as robust as possible.

8. 30-Day Time Limit

Chapter 8 relies on a 30-day time frame for review deadlines, such as that that applies to Commission reviews of NOIDs (see, for example, Section 8.2.A). This appears to emanate from CCR Section 13548 that specifies 30 days and is in conflict with the Coastal Act. The relevant statute section, namely Section 30606 of the Act, is clear that the time frame that applies is 30 working days. With weekends and holidays, the difference between the two is approximately two weeks. Given the shortened review timeframe for NOIDs more generally, and the aforementioned Commission hearing schedule, it is particularly important for maximizing the effectiveness of the Commission's review process, and the ability of the interested public to participate, that the full time allotted per the Act is applied. Modifications are included to change such references to 30 working days.

9. Recipients of Notice

The Commission's regulations support, and the Commission's long practice has been to, maximize public participation in the development review process. Coastal Act Section 30006 states:

> *The Legislature further finds and declares that the public has a right to fully participate in decisions affecting coastal planning, conservation and development; that achievement of sound coastal conservation and development is dependent upon public understanding and support; and*

> *that the continuing planning and implementation of programs for coastal conservation and development should include the widest opportunity for public participation.*

Similarly, the Commission's regulations specify that, in addition to specific persons and agencies (i.e., property owners within 100 feet, other agencies with jurisdiction, persons who requested notice, etc.), the Executive Director is to notify all persons known to be interested when a proposed development project is considered.[98] Towards this end, the Commission attempts to provide effective notice to all known interested persons. Such persons often become known during the initial development review process (e.g., through CEQA review, etc.), and it is important that the broadest possible net is cast when noticing hearings on proposed developments are broadly noticed. The Commission recognizes that the CLRDP regulations do not have this reference to "persons known to be interested." Nor do they prohibit the inclusion of this category of persons in a CLRDP noticing process. The value of maximizing public participation extends to CLRDP development – perhaps more so given the generally shortened review timeframe allotted to Commission review per the Act. Given the underlying legislative intent of the Act, as manifested in Section 30006, and the legislative intent that the Act be "liberally construed to accomplish its purposes and objectives" (Section 30009), modifications are suggested to ensure effective notice, including providing notice to known interested persons (see Section 8.2.B.10 and 8.2.C.6).

10. Posting Notices

Proposed Section 8.2.D indicates that notices will be posted at the Campus and related locations subject to certain posting criteria, and that the notices will be posted at least 30 days prior to construction. The provisions identified in this respect are mostly appropriate. That said, there is a potential timing loophole in this noticing provision as proposed inasmuch as the University could send a NOID several months before construction, the Commission could act on the NOID, and the site could then be posted as required "30 days prior to the beginning of construction" but well after the notice would effectively "notice" any interested parties. Clearly, that does not appear to be the University's intent with this provision, but the loophole exists nonetheless. The notice is meant to maximize the ability of the interested public to participate in the development review process (as described above as well). This can only be accomplished if the notice is posted before any Commission hearings on the matter, and preferably prior to any Regents' actions.[99] Accordingly, modifications are included to ensure that the notice is posted no later than the date that the NOID is sent (see Section 8.2.D).

11. NOID Filing Review

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[98] CCR Sections 13054 and 13063.

[99] On the latter, it makes sense to the Commission that such notices be posted in advance of Regents' meetings for any particular proposed development project. That said, extending the posting notice timing to precede the Commission's review requirements is not required by the Act or the Commission's regulations. Although it would provide for the earlier public notification, would better maximize the ability of the public to participate and share concerns before projects made it to the Commission, and would presumably help the University in shaping its proposed development projects accordingly, modifications are not suggested to make it a CLRDP requirement. That said, the Commission encourages the University to do everything possible to maximize the ability of the interested public to participate in the University's development review process, including through early posting of notices.

Section 8.4 describes the procedures for Commission review of CLRDP development projects. Section 8.4.A.2 specifically describes the process to be used for deeming a notice filed pursuant to CCR Section 13549. The filing date is important in this respect as it starts the clock running on the 30-working day deadline for Commission review of the CLRDP development project – a deadline that, if missed, results in such projects being deemed consistent by the Commission's inaction. As proposed, this CLRDP section applies the 13549-identified 10-day review clock to both the initial submittal of the NOID (and its required supporting information), and any future submittals of follow-up information requested by the Executive Director to allow a CLRDP consistency determination to be made by the Commission. The problem with this construct is that the 10-day requirement applies only to the initial submittal per the CCR Section 13549. Filing after that point occurs "when all necessary supporting information has been received by the Executive Director." As such, the regulations structure this so that the Executive Director deems when a NOID is filed after reviewing the requested information (once submitted) and ensuring that it constitutes the "necessary supporting information" requested. The regulations do not specify a 10-day period for such review, and it is inappropriate to apply one so short to something as important as a filing determination when 10 days – 10 calendar days – is roughly a week, and, especially when the effect of deeming a NOID filed is to start the clock running on the Commission deadline for review. Modifications are suggested to conform this language to that in CCR Section 13549.

12. Expiration and Extension of CLRDP Authorizations

CLRDP Section 8.6 describes how long CLRDP development project authorizations remain valid, and the means for extending expiration dates if development has not commenced pursuant to a valid authorization. In terms of their initial effective time period, Section 8.6.B specifies that such authorizations are good for three years in most cases. The three year period proposed is one year longer than the Commission's regulations provide for coastal development permits more generally (per CCR Section 13156). However, the Coastal Act and regulations are silent with respect to the length of time allotted to CLRDP authorizations. The University has argued that a two year requirement cannot be applied to them as a result.

The Commission notes here that it would be preferable for the CLRDP to match the Commission's regulations in this respect, and for such authorizations be limited to an initial two year time frame. Two years seems ample time for the University to proceed with a development project pursuant to the CLRDP. The Commission has had long practice in the coastal permitting arena and notes that in the vast majority of cases, development is initiated well in advance of the two year deadline. Past a certain amount of time, questions arise about whether there are any circumstances that have changed that would require a new review. In some cases, circumstances are such that a new review should probably take place earlier than within two years, but two years is the date range that has been applied for over thirty years and has proven to be fairly good arbiter of when a development authorization may be "stale."

As provided for in the Commission's regulations, the initial two year time frame may be extended in one year increments subject to a finding that there aren't any changed circumstances that may affect the consistency of the development with Chapter 3 of the Coastal Act (CCR Section 13169). Similarly the CLRDP allows for one year extensions subject to similar findings. In both cases, development

authorizations can become "stale" notwithstanding the required findings. In the Commission's experience, a total of five years (with valid extensions) seems to be the outer threshold past which projects typically need re-review.

Therefore to strike an appropriate balance between the University's desire, the regulations, and the Commission's experience in this respect, modifications are included to specify that the initial three year effective period for CLRDP authorizations may only be extended twice, and only for up to a year at a time (i.e., a total possible effective time of 5 years) (see Section 8.6). Five years is ample time within which to undertake development projects, and re-review is warranted at that point to be able to best understand to what extent the project remains appropriate and consistent with the CLRDP. In striking this balance, the Commission notes that the CLRDP also includes language stating that the initial effective period is three years "unless explicitly stated otherwise in the approval [sic, authorization"] documents." The Commission expects that initial authorizations will be for up to three years and not longer unless there is compelling evidence that a time period past three years is necessary or required for good reason.

Finally, with respect to the manner in which extensions are proposed to be reviewed under the CLRDP, Section 8.6 lacks specificity, and it is missing in substantial detail an articulated process. In order to ensure that such process proceeds in a structured manner that provides for adequate review, modifications are included to tie such review parameters, particularly with respect to bringing them before the Commission as necessary, to the established parameters for such review already identified in the CLRDP (e.g., noticing materials for Commission hearings; de novo re-review subject to established CLRDP process; etc.). In that way, this section does not need to reinvent or have a different set of similar or related requirements, but rather can tie back more generally to detailed information specified elsewhere in Chapter 8.

13. CLRDP Monitoring Reports

CLRDP Section 8.8 identifies the manner in which the University would monitor individual development projects as well as CLRDP implementation overall, including through the development of written annual reports. Monitoring as described in this section should help to develop the fact set for understanding the effectiveness of the CLRDP, and whether changes to it are appropriate and warranted. As such, it should be an effective tool for the University and other interested parties. In order to facilitate the Commission's access to these reports, particularly so that the Commission can effectively make use of that information with respect to ongoing development project review as well as any CLRDP amendment reviews, modifications are included to ensure that the University provides a copy of the annual written report to the Commission.

14. Enforcement

CLRDP Section 8.9 specifies the manner in which the CLRDP will be enforced, including that the University will ensure that development on the Campus is consistent with the CLRDP and consistent with the terms and conditions of development project authorizations pursuant to the CLRDP. Although this section is mostly straight-forward, modifications are necessary for Coastal Act consistency and

effective enforcement at the Campus as follows: (1) it needs to be clear that the provisions of the CLRDP are enforceable, but also that any applicable provisions of the Coastal Act from which the CLRDP achieves its status are also enforceable; (2) it needs to be clear that all of Coastal Act Chapter 9 applies to enforcement on the Campus, and not just the subset of Chapter 9 Sections identified inasmuch as the non-referenced sections can be applicable in various circumstances as well; (3) it needs to be clear that there may be circumstances in which the Commission may enforce the CLRDP and/or Coastal Act on the Campus as well as the University.[100] These modifications are designed to ensure that the coastal resources of the Campus and of its surroundings are protected to the maximum extent feasible consistent with the law, and are necessary for the Commission to find the CLRDP consistent with the Act in that respect.

15. Emergency Authorizations

CLRDP Section 8.10 describes the manner in which development may be authorized in the case of emergencies demanding immediate action. This CLRDP section is generally very thorough, but there are several minor problems with it that could affect its function as follows.

First, emergency development is considered temporary unless it is ultimately recognized through a follow-up regular development review process that allows it to be compared against the applicable standards; if it is not so recognized, it enjoys no status and is required to be removed. In other words, emergency development is meant to be a stop-gap measure meant to abate the emergency for a limited time so that an appropriate permanent response, if necessary, can be formulated and implemented according to regular development review procedures. These concepts are well known with respect to emergency development authorizations. That said, the Commission notes that in many cases, emergency development is installed in a manner that makes it difficult to be removed, even when it is meant to be temporary (e.g., rip-rap in some cases). As a result, development installed under emergency pretense sometimes can prejudice fair and impartial review of it against the applicable standards when permanent authorization for it is requested. Although this cannot always be helped depending on the nature of the emergency circumstances, it is conceptually clear that that type of situation is meant to be avoided to the maximum extent feasible at the time of the emergency when options to abate it are being considered.

In the case of the CLRDP, several locations in Section 8.10 do not adequately account for this operating principle, and modifications are included that: require emergency development to be the minimum necessary to address the emergency and, to the maximum extent feasible, to be the least environmentally damaging temporary alternative for addressing the emergency (see Section 8.10.F); require removal of the temporary emergency development if it hasn't been recognized by a regular authorization within 150 days, and require initial project reports to got to the Regents within 90 days (see Section 8.10.G);[101] and

[100] See also Commission's retained jurisdiction finding below.

[101] These time periods are similar to those that apply to Commission-issued emergency permits, albeit that those are in a permit context where filed applications are due within 60 days and a regular coastal development permit to recognize the development must be issued within 150 days. The 90-day time frame for a project report to go to the Regents builds on the Commission's 60-day parameter with the twist being that a "filed application" has no equivalent in a CLRDP context. In this sense, the development of a project report is allotted roughly the 60 days, and the remaining 30 days are provided to bring the matter to the Regents. In other words, the time allotted is roughly the functional equivalent as to that that is allotted to Commission emergency permits.

require an emergency authorization to be exercised within 10 days (see Section 8.10.G).[102]

Second, proposed CLRDP Section 8.10.H identifies procedures for the Commission review and authorization of emergency development pursuant to the Coastal Act for those areas over which the Commission retains coastal permitting jurisdiction. However, the Commission's regulations and long practice have resulted in well established procedures for such Commission actions on emergency requests. There is no need for the CLRDP to include a separate and different set of procedures that would only serve to confuse the Commission's emergency permitting role. Modifications are included to delete Section 8.10.H.

Third, the University is required to coordinate with Commission staff as to the nature of the emergency and the scope of the emergency development proposed (Section 8.10.E). As stated above with respect to other development review processes, such coordination can help to avoid conflicts and can help the CLRDP to function most effectively. Towards that end, the coordination aspects of Section 8.10 are important. That said, the required findings for an emergency authorization don't close the loop and ensure that such coordination has occurred, to the extent time allows. Modifications are included to make this coordination finding explicit (see Section 8.10.F).

And finally, the operative term in the case of an emergency is not to authorize "work" as stated, but rather to authorize emergency "development." In other words, development that would otherwise require a normal process (including a NOID, Commission review, etc.) is instead being authorized on an emergency basis. Although it is also accurate to say that there is "work" being undertaken, the end result, and the reason for the emergency section, is to allow for some amount of development to proceed without a normal authorization. As such, and to maintain consistency with the construct of the CLRDP overall, the term "work" is replaced by the term "development" throughout Section 8.10.

16. Non-Conforming Structures

Once the CLRDP is certified, there may be some Campus structures that become non-conforming with respect to it. The Commission expects that such non-conforming structures will be made to conform to the CLRDP over time and as they become part of CLRDP development project review (e.g., by virtue of being located at the site of a proposed development project). In some cases, the CLRDP identifies a timetable for certain non-conforming structures (e.g., the caretakers trailer conversion in the Lower Terrace development zone, replacing the chain link fence at the site, etc.), but otherwise is silent with respect to them. The CLRDP represents the blueprint for the buildout of the Campus, and structures that do not conform to it are not consistent with that blueprint, and must be brought into conformity with it. In order to make this explicit, modifications are included to add a non-conforming structure section to Chapter 8 (as new Section 8.11). This new section defines what a non-conforming structure is (e.g., lawfully authorized, existing at the time of certification, etc.), and requires that such structures be brought into conformance with the CLRDP.

17. Coastal Commission's Retained Jurisdiction

[102] Ibid.

CLRDP Section 8.7 describes the Commission's retained coastal permitting jurisdiction. Although this section is relatively clear, it requires clarification in terms of describing the areas on and off-Campus that are within the Commission's retained coastal permitting jurisdiction. Section 30605 provides that the Commission shall review LRDPs "in the same manner prescribed for the review of local coastal programs [LCPs] as set forth in Chapter 6 (commencing with section 30500)." Coastal Act Section 30519(b) indicates that "any development proposed or undertaken on any tidelands, submerged lands, or on public trust lands, whether filled or unfilled" is excluded from the delegation of permit authority to a local government that otherwise occurs upon certification of an LCP, and thus remains subject to review by the Commission. These Section 30519 categories define what is oftentimes refereed to as the Commission's "retained" jurisdiction.[103]

The CLRDP mostly tracks the language of Section 30519, but applies it only to areas "adjacent to" and thus outside of the Campus boundaries.[104] CLRDP Section 8.7 states:

> *After certification of the CLRDP, the Coastal Commission continues to exercise permit jurisdiction over development on tidelands and submerged lands and any other public trust lands adjacent to the campus.*

The University has made the argument that the CLRDP can include within its scope development on tidelands, submerged lands, or public trust lands that are located on lands owned or controlled by the University. Along with all other development contained in the CLRDP, such development would not be subject to the otherwise applicable permit requirements of Section 30600 of the Coastal Act. Although there are possibly other areas, the area to which the University's arguments have been directed to date on Campus is the Younger Lagoon area, an area that is potentially comprised of public trust lands. The University has also alluded to their leases of State Lands related to the seawater system as a further example of lands under their control and thus "on" Campus, and thus also eligible for inclusion within the scope of the CLRDP.[105] The University's argument is premised primarily on their assessment that any property owned and controlled by the University is on the Campus and subject to the CLRDP (and not to Commission review pursuant to the Act). In making this argument the University relies upon Section 13502(c) of the Commissions regulations, which defines the term "educational facility," which pursuant to Section 13502(b) constitutes what may be included within the scope of a CLRDP, as "any real property owned or controlled by the University," without excepting from such definition the categories of land described in section 30519(b). The University further relies on the fact that Section 30519(b) expressly excepts from the delegation provisions of Section 30519(a) "lands within any state university…within the coastal zone." In the University's view this exception for land within state

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[103] Per Section 30519, there are also additional areas cannot be delegated, including areas within certain ports and state colleges and universities.

[104] In addition, the use of the word "and" implies that an area has to be all three things (i.e., tidelands, submerged lands, and any other public trust lands) to so qualify. However, the presence of any of the three dictate Commission jurisdiction

[105] It is noted here that at the time of this staff report, the University was developing additional survey and title work to conclusively demonstrate lands that would be considered University property and thus "on" Campus in this respect. This information was a Commission staff filing requirement not yet fulfilled. The primary questions are related to the interface between the Campus and Shaffer Road (an issue described in previous findings) and the Campus with the shoreline.

universities renders inapplicable to "state universities" any reservation of authority that might otherwise occur under the exceptions for submerged, tide and public trust. Further support for the University's position may be found in a comparison of the provisions of Section 13545 of the Commission's regulations, which provide that certification of an LCP results in a "delegation…of permit authority over those developments over those developments specified in PRC section 30519…," with those of Section 13548, which provides that certification of an CLRDP results in the authority to "undertake or authorize any development project for [the] educational facility [for which the LRDP was certified]…without a coastal development permit…"[106]

The Commission does not concur with the University's argument. Section 30519(b) of the Act, as incorporated into Section 30605, is clear in its description of areas that remain subject to the Commission's retained jurisdiction after certification of an LCP or a CLRDP. Although it is accurate that the Act and the corresponding regulations related to LRDPs are not explicit in translating Section 30519 to LRDPs, this is hardly the only area for which a one-for-one translation is not explicit. On the contrary, the applicable LRDP sections leave out relevant detail for many aspects covered explicitly in relation to coastal permits and LCPs. As a result, there is the need to construe the Act and regulations broadly in this sense. The University's attempt fill this lack of LRDP clarity with a novel take based on state University's usurping the Commission authority is not persuasive, and not consistent with the Coastal Act.[107] Modifications are included to correctly conform the description of the Commission's jurisdiction to the Coastal Act (see Section 8.7).

With respect to the precise boundaries of the Campus and the Commission's retained jurisdiction, a map has not yet been prepared. Partially this is related to the lack of clarity associated with certain Campus property boundaries, and partially this is related to the fact that the CLRDP does not attempt to map tidelands, submerged lands, or public trust lands. A modification is included to require a new figure in Chapter 8 that identifies the Campus boundaries and the Commission's retained jurisdiction (see suggested modifications).

18. CLRDP Consistency Qualifiers

There are several CLRDP sections (text, policies, etc.) that require general consistency with the CLRDP, or with discrete sections of the CLRDP (such as the Resource Management Plan), that include qualifying text (including, but not limited to, such phrases as "in accordance with the standards and

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[106] Finally, it is of relevance to note that the LRDP that the Commission certified for UC Santa Barbara in 1990 includes within its scope a "lagoon" (Campus Lagoon, described as a "brackish pond"), and a slough (Devereux Slough, part of the Coal Oil Point Natural Reserve) and other water features (Storke Wetlands) very similar in nature to Younger Lagoon that the University proposes to include within the scope of its CLRDP (UCSB 1990 LRDP, p. 2.VI.1.). In its certification of the UCSB LRDP, the Commission gave no apparent consideration to the extent to which the above-identified aquatic areas might fall within the categories of "submerged, tide, or public trust lands." On the other hand, the UCSB LRDP provides that "the beach seaward of the [Campus] lagoon barrier is located within state tidal lands; and therefore, the construction of any form of shoreline protection at this location will require a coastal development permit" (Id., p. 2.VI.8.). In July, 2005, the Commission approved NOID 3-05 "for repair of a weir structure within the Campus Lagoon on the Main Campus, UCSB."

[107] Note that in a recent case raising a similar question with respect to the Commission's retained jurisdiction (the Commission's PWP/NOID decision for the Ventura Harbor Boating Instruction and Safety Center (BISC)), the Commission imposed a requirement for a separate CDP for portions of BISC located in the retained jurisdiction areas.

measures contained in this CLRDP," "consistency with CLRDP standards," etc.). Most, if not all, of these references are to things that are not explicitly defined in the LCP (such as "standards," "measures," etc.). In some cases, like "measures" for example, there are implementation measures, management measures, and other measures that are identified in the CLRDP, but not a global defined category of "measures." It is clear that such references are not meant to be to specific CLRDP components so much as to general CLRDP (or CLRDP section) consistency. In order to avoid a future interpretation that such references were meant to be applied more narrowly to subsets of the CLRDP, and used to somehow undermine the object of the text within which they reside, modifications are suggested to ensure that such references applicable to such consistency are clarified to apply generally (see suggested modifications).

Similarly, oblique references within the CLRDP also need to be understood and read broadly as opposed to narrowly. For example, references to such things as "management measures in the Resource Management Plan" means referring to the RMP management measures themselves as well as the goals, performance standards, descriptive text, figures, tables, and other elements of the RMP as a whole that inform and describe said management measures. In other words, such references to subsets of discrete CLRDP sections are not to be read to exclude other portions not explicitly identified. For similar reasons, modifications are suggested to ensure that such oblique references are clarified to apply overall (see suggested modifications).

19. UCSC Commitments

The CLRDP commits the University to a series of coastal resource improvements intended to at least partially offset some of the impacts from Campus facility development. These include such things as restoration, enhancement, and long-term management of terrace wetland, wildlife, and grassland areas; public access trail and overlook improvements; road and public parking improvements; drainage/water quality improvements; and similar projects designed to offset development impacts and to enhance/improve coastal resources in relation to Campus development (see, for example, proposed CLRDP Chapter 9 and Appendices A and B in Exhibit E). Some of these projects are tied directly to components of the CLRDP building program and accounted for there, and others are broader commitments not necessarily tied to facility development. In addition to specific modifications to these CLRDP sections previously detailed in this report, there are two primary contextual issues that must be understood with respect to such commitments, and for which modifications are necessary to achieve Coastal Act consistency.

Adherence to Commitments

With respect to ensuring that the University follows through on such commitments, proposed CLRDP Policy 1.2 states as follows:

> ***Policy 1.2 University Commitments.*** *Development shall be authorized by the University and allowed to commence only if all University commitments identified in this CLRDP, including but not limited to the improvements identified in Chapter 9, have been pursued by the University and, to the extent they are in the University's control, have been undertaken as provided for in*

this CLRDP. Upon learning of any default on such a University commitment due to circumstances beyond the University's control, the Planning Director shall notify the Executive Director of the manner in which the University proposes to remedy the default and a mutually acceptable schedule for monitoring and reporting progress on correcting the deficiency.

As proposed, this policy is equivocal, and potentially allows a way for the University's commitments to not occur. The Commission finds that the University commitments identified in the CLRDP are an inextricable part of the CLRDP, and a reflection of what the Commission expects will occur on the site both with the specific CLRDP building program and separate from it through general implementation of the CLRDP for the Marine Science Campus. These coastal resource improvement commitments reflect public benefit amenities and environmental mitigation measures that are necessary to avoid, reduce to acceptable level, and/or compensate for adverse impacts to coastal resources that development activities pursuant to the CLRDP would otherwise cause.[108] Compliance by UCSC with the commitments and obligations relating to such coastal resource improvements can be considered a necessary precondition for authorization to proceed with development projects that the CLRDP authorizes. In other words, and as structured by the Coastal Act and the Regulations relative to CLRDPs, such commitments are reflective of and provide for the necessary detail in the plan that allows a project to proceed subject to limited Commission review. Accordingly, the Commission expects UCSC to be in full compliance with its commitments and obligations under the CLRDP in order for any particular development project to be authorized. Towards this end, modifications to CLRDP Policy 1.2 are required so that it instead states as follows:

Development shall be authorized by the University and allowed to commence only if all University commitments identified in this CLRDP, including but not limited to the improvements identified in Chapter 9, have been pursued, undertaken, and completed according to the requirements and the time frames associated with each as identified in the CLRDP.

Similar modifications are provided to explicitly state that the improvements identified in CLRDP Chapter 9, Capital Improvement Program, are enforceable requirements of the CLRDP (see modifications to Chapter 9 introduction).

Timing

With respect to the timing for implementing such commitments, the CLRDP includes some internal inconsistencies, some lack of clarity, and some timing that is inappropriate. With respect to internal inconsistencies, modifications are included to correct such discrepancies to avoid implementation confusion in the future (see, for example, modifications to the management measures, performance standards, and Table A-13 of Appendix A). With respect to the lack of timing clarity, this issue is primarily found in Chapter 9 where it is not clear when such improvements would be required to be commenced and completed. For example, the timing parameters of Chapter 9 adhere to the following

[108] Both in terms of offsetting mitigations that are built into its individual development project impact framework (e.g., like fair share sewer, water, traffic, and other similar improvements), other commitments that are that are tied to specifically identified projects (e.g., like trail development associated with Campus road realignment), and others that apply more generally to overall University commitments over time (e.g., ongoing habitat restoration, enhancement, and long-term management).

construct: "this improvement shall be undertaken and completed concurrent with the development of any new building in the Lower Terrace development zone." The problem with such a statement is that while it is clear that the improvement would be started at the same time as the referenced building, its completion date is not as clear. Although it can be presumed that the University meant that the improvement would be completed at the same time as the building it was associated with, that connection is not explicit nor clear. To make such a implicit possibility explicit, modifications are included to specify that such improvements must be complete prior to occupancy and/or use of the development project that triggered the improvement requirements (see modifications throughout Chapter 9).

With respect to inappropriate timing, a series of modifications are suggested to modify timing parameters associated with Chapter 9 improvements. Primary among these is the concept that certain types of improvements would be triggered with the first 10% of new building floor area (square footage) contained in the Campus Building Program set forth in Subsection 5.2.1 (see modifications throughout Chapter 9). The intent with this change is to recognize that the first 10% of the building program creates a larger impact overall than would the last 10%, and that it cumulatively impacts coastal resources in a greater way than an individual building might. In recognition of this concept, it is appropriate for this threshold to be used to provide the public benefits associated with the required improvements at one time to maximize their value in relation to the coastal resource impacts associated with 10% of the Campus building program (see, for example, changes to Chapter 9 figures, Table A-13 of Appendix A, etc.). Specific to overlook improvements, the 10% threshold also strikes a balance between pre-existing coastal development requirements for provision of certain overlooks previously required to offset impacts of the YLR closure (e.g., overlooks A, D, and E – see Figure 9.1), and what the Commission is willing to acknowledge is an appropriate time to initiate such development in light of the current site and the CLRDP building program.

In addition, the timing for the improvements related to the public beach access trail and the public access parking spaces in Chapter 9 have been modified to be timed to be completed within six months of certification of the CLRDP.[109] For the public access parking, the purpose of this timing modification is to recognize that there will be an immediate impact to public access parking inasmuch as the entire parking paradigm for the site is shifting and it is inappropriate for that to result in an impact to these public parking spaces. Six months is a reasonable amount of time for the University to put a parking program into place that satisfies the CLRDP requirements related to public access parking. Similarly, for the public beach access trail, the six months identified for opening the gate and provided signage is ample time for the University to do such minor improvements, and is in recognition of the fact that the accessway is open as of certification of the CLRDP (see also public access and habitat findings), and that six months to have signs catch up to that opening is perhaps overly reasonable.

Finally, modifications are included to specify that the required water quality improvements be competed with the any new development in the Middle Terrace development zone in light of the fact that these

[109] Note that some of the timing modifications in Chapter 9, such as for the public access trail and public parking, are discussed in preceding findings. See also habitat and public access findings.

improvements are necessary now, and the first such development is an appropriate trigger in that respect (see Section 9.4).

20. Other Issues

Several modifications are included to provide clarity in Chapter 9, including modifications to: conform the parking improvements text to that of Chapter 5 (see modifications to Figure 9.4); and to delete the second row of Figure 9.4 because it is already covered by the first row.

21. Figures

Although not exclusively a procedural issue, the figures of the CLRDP require modifications throughout (see the end of each CLRDP chapter and appendix in Exhibit E, primarily the last few pages of each, as applied to the figures in Exhibit C for identified figure modifications). These modifications are necessary to ensure accuracy, internal consistency (including between figures and text), effectiveness of CLRDP implementation, and, overall, to protect coastal resources as required by the Act inasmuch as leaving them uncorrected would result in inaccuracy, in internal inconsistency and confusion, and a lack of CLRDP effectiveness overall. In some cases it is noted that such figure modifications necessitate changes to figures in other chapters as well. Although the Commission has attempted to identify all such cases of overlap, there may be some figures to which modifications overlap. Whether explicitly identified in the modifications in this respect or not, the intent is that all figure modifications must be applied to all figures consistently. These figure modifications primarily focus on making factual corrections and conforming the figures to the as modified CLRDP text, and are required to be able to find the CLRDP consistent with the Coastal Act. Finally, and in order to most effectively perform its oversight role, larger scale copies of the some of the key final figures need to be provided to the Commission for its use in relation to development project and other review emanating from the CLRDP (see suggested modifications). Without such figures, the Commission's post-certification review ability would be hampered by the 8½" x 11" figures that can be difficult to use, particularly with respect to locations along the perimeter of defined features, and particularly in relation to measurements.

D. CLRDP Procedural Conclusion

In sum, the CLRDP is generally clear with respect to its procedures, and generally follows the parameters established by the referenced sections of the Commission's regulations and the Coastal Act. There are a series of minor and major Coastal Act and regulation inconsistencies with the CLRDP as proposed, including procedures that are inadequate and/or incomplete, that require modifications. The modifications identified in this respect are necessary for the Commission to find the CLRDP consistent with the Coastal Act. If modified as directed, then the CLRDP should be able to effectively function, the University should be able to realize its objectives with the Campus, the offsetting public benefits should be realized, and coastal resources overall protected consistent with the previous findings and Chapter 3 of the Coastal Act. In addition, related and overlapping modifications required to find procedural consistency are found throughout the CLRDP, including modifications related to land use, habitat, public access and recreation, and public viewsheds (see suggested modifications, including those in Exhibit E). In conclusion, only with the noted modifications will the CLRDP be consistent with the cited

procedural policies.

F. California Environmental Quality Act (CEQA)

The Coastal Commission's review process for LCPs and LRDPs (and amendments thereto) has been certified by the Secretary of Resources as being the functional equivalent of the environmental review required by CEQA. Therefore, local governments and State universities are not required to undertake environmental analysis of proposed LCPs or LRDPs, although the Commission can and does use any environmental information that local governments and State universities have developed. CEQA requires that alternatives to the proposed action be reviewed and considered for their potential impact on the environment and that the least damaging feasible alternative be chosen as the alternative to undertake.

In January 2004, the University distributed a draft EIR analyzing both the overall effect of implementation of the then draft CLRDP over time, as well as five specific projects contemplated by the University (i.e., the five projects identified in CLRDP Chapter 7).[110] In April 2004, Commission staff provided the University with detailed comments on both the draft EIR and the draft CLRDP.[111] These comments were very detailed, covering many of the same issues still relevant and discussed in this report, including areas of potential Coastal Act inconsistency and recommendations for changes to address same. In September 2004, the University responded to comments and subsequently certified a final EIR for the project. Included in that final EIR are a series of mitigation measures meant to offset potential adverse impacts associated with CLRDP implementation. As such, where the University commits in the CLRDP to CEQA compliance (including Section 8.1.D), the Commission expects that such compliance means compliance with the base EIR as well,[112] including all identified mitigation measures that are applicable either based on individual project impacts, cumulative impacts, or other base EIR reasons, but only to the extent such compliance with the base EIR is not inconsistent with some aspect of the CLRDP. In other words, in the event that a requirement in the base EIR is inconsistent with the CLRDP, then the CLRDP provisions shall prevail.[113] The Commission's certification of the CLRDP with respect to CEQA is based on this understanding.

In sum, this staff report has discussed the relevant coastal resource issues with the proposal, and has recommended appropriate suggested modifications to avoid and/or lessen any potential for adverse impacts to said resources. All public comments received to date have been addressed in the findings above. All above Coastal Act findings are incorporated herein in their entirety by reference.

As such, there are no additional feasible alternatives nor feasible mitigation measures available which would substantially lessen any significant adverse environmental effects which approval of the CLRDP,

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110 UCSC Marine Science Campus Draft EIR (SCH # 2001112014).

111 Letter of April 19, 2004 identifying 99 major points in 16 major categories.

112 Ibid, SCH # 2001112014.

113 Note that a base EIR requirement that provides a different mitigation than that identified in the CLRDP is not categorically an inconsistency of itself; rather there is an inconsistency to the extent the base EIR requirement itself is inconsistent with the CLRDP.

as modified, would have on the environment within the meaning of CEQA. Thus, if so modified, the proposed CLRDP will not result in any significant environmental effects for which feasible mitigation measures have not been employed consistent with CEQA Section 21080.5(d)(2)(A).

CALIFORNIA COASTAL COMMISSION
CENTRAL COAST DISTRICT OFFICE
725 FRONT STREET, SUITE 300
SANTA CRUZ, CA 95060
(831) 427-4863

F11a

Prepared October 12, 2005 (for October 14, 2005 hearing)

To: Commissioners and Interested Persons

From: Charles Lester, Deputy Director
Rick Hyman, Central Coast Chief Planner
Dan Carl, Coastal Planner

Subject: STAFF REPORT ADDENDUM for F11a
UCSC Marine Science Campus Coastal Long Range Development Plan (CLRDP)

1. Postponement

The University has requested that the hearing on the CLRDP be postponed to allow them adequate time to consider the staff report and recommendation, as well as to respond to recent USFWS comments (see attached October 7, 2005 letter). The University has also requested that the CLRDP be heard at the Commission's November hearing. Staff does not oppose a postponement to allow the University time to review the staff report and address USFWS concerns. However, given the uncertainties associated with the University's response and any associated staff time for review, the likely time necessary to address USFWS concerns, as well as the extremely limited staffing and production resources of the Commission, staff cannot commit to a date certain for the full hearing on the CLRDP.

2. Extend Commission Review Time Frames

The CLRDP was deemed submitted on September 29, 2005. The Coastal Act (PRC Section 30512 as referenced in PRC Section 30605) and the Commission's regulations (14 CCR Section 13537(a)) require that the Commission take action on the CLRDP no later that 90 days following September 29, 2005 (i.e., by December 28, 2005). In addition the Commission's regulations (14 CCR Section 13522) require that the Commission hold a public hearing on the CLRDP no later than 60 days following September 29, 2005 (i.e., by November 28, 2005). The Act (PRC Section 30517) and the regulations (14 CCR Section 13535(c)) also allow the Commission to extend these deadlines for up to a year for good cause.

As described above, it is not clear when this item will be ready to be scheduled and back before the Commission. Although it is possible that the CLRDP is heard by the 60-day deadline and acted on by the 90-day deadline, it is not a certainty and it may be longer than that. Accordingly, Staff recommends that the Commission extend the deadlines for Commission hearing and action by one year, which is the Commission's usual practice with LCP amendment extensions, to provide maximum flexibility for workload management, and avoid the need for future extension requests. Staff fully expects, though, that the CLRDP will ultimately be heard well in advance of the new deadlines. A one-year extension would result in a new deadline for a Commission hearing of November 28, 2006, and a new deadline for a Commission action of December 28, 2006.

Therefore, in order to effectuate the requested postponement and to extend the time frames for Commission hearing and action, the previously distributed staff report and recommendation (dated

prepared September 29, 2005) is replaced by the recommendation that follows:

Summary of the Staff Recommendation

Staff recommends that the Commission extend the deadlines for Commission hearing and Commission action on the UCSC CLRDP by one year.

Motion. I move that the Commission extend the 60-day time limit to hear, and the 90-day time limit to act on, the UCSC CLRDP by a period of one year.

Staff Recommendation. Staff recommends a **YES** vote. An affirmative vote of a majority of the Commissioners present is needed to pass the motion.

3. Correspondence Received

Correspondence received in the time since the staff report and recommendation were distributed is attached.

4. Staff Report Duplication Errors

It has come to Staff's attention that some copies of the staff report and recommendation that were distributed included duplication errors (extra pages, pages out of order, etc.). These errors appear to have been confined to pages 142 through 201 of Exhibit E. For informational purposes and to facilitate Commissioner and other review in the interim, pages 142 through 201 of Exhibit E are presented here in their correct order (see attached replacement pages).

Addendum Attachments

Attachment 1: UCSC October 7, 2005 Postponement Request
Attachment 2: Correspondence Received
Attachment 3: Pages 142 through 201 of Staff Report Exhibit E

F11a

UNIVERSITY OF CALIFORNIA, SANTA CRUZ

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PHYSICAL PLANNING AND CONSTRUCTION

SANTA CRUZ, CALIFORNIA 95064

October 7, 2005

via USPS and facsimile
831-427-4877

Dr. Charles Lester, Director
Central Coast District Office
California Coastal Commission
725 Front Street, Suite 300
Santa Cruz, CA 95060

Subject: UC Santa Cruz Marine Science Campus Coastal LRDP
Coastal Commission Hearing Postponement

Dear Dr. Lester:

The University hereby requests a one-month postponement of the upcoming Coastal Commission hearing on the UCSC Marine Science Campus CLRDP scheduled for October 14, 2005 in San Diego. Late arriving comments from the US Fish and Wildlife Service combined with the recent mailing of the Coastal Commission staff report have left us with insufficient time to adequately prepare for next week's hearing. We are working to address concerns raised by the US Fish and Wildlife Service, and the extra time will also allow us to better digest the lengthy report produced by your staff.

We request that the Coastal Commission hearing on the Marine Science Campus CLRDP be postponed to the November 16-18 meeting to be held in Los Angeles.

Sincerely,

John Barnes

John Barnes
Director of Campus Planning

cc: Gary Griggs
Mary Hudson
Nancy Lucast
Frank Zwart

ADDENDUM ATTACHMENT 1: UCSC POSTPONEMENT REQUEST

F11a

FORM FOR DISCLOSURE OF EX-PARTE COMMUNICATIONS

Name or description of the project: UCSC Long Marine Lab master plan

Time/Date of communication: 10/7/05, 11am – 12:30pm

Location of communication: UCSC Long Marine Lab, Santa Cruz

Person(s) initiating communication: Charles Lester & Dan Carl, CCC staff

Person(s) receiving communication: Meg Caldwell

Type of communication: Site visit with Professor Gary Griggs, UCSC, Charles Lester and Dan Carl. We reviewed the property, with specific attention to the proposed building expansion nodes, existing equipment and facilities, public access through the property and to the lagoon beach, adjacent and nearby properties (including nearby property owned by UCSC), and parking. We discussed the importance of protecting sensitive equipment present on the site and whether low impact and low intensity public access to the beach area would be feasible. Professor Griggs explained that the item may need to be postponed pending further communication with USFWS regarding the proposed expansion and its potential impact on the red legged frog. We briefly discussed the "green infrastructure" approach recommended by staff and that drainage collection areas could be attractive to endangered or threatened species. We also discussed legal protections available to landowners that enhance habitat, and I encouraged UCSC to explore those options.

Date: 10/10/05

Meg Caldwell

Meg Caldwell

ADDENDUM
ATTACHMENT 2

TERRACE POINT ACTION NETWORK

2395 Delaware Avenue, #21
Santa Cruz, CA 95060

Tel: (831) 466-3332
Fax: (831) 466-3332
Email: rcurry@aasi.com

F11a

October 5, 2005

California Coastal Commission
Central Coast District Office
725 Front Street
Santa Cruz, CA 95060

Commissioners:

The CLRDP submitted by the University, and even as modified by the Staff report, needs to be corrected by you in several important ways.

1. Reduce Density and Mass

The proposed development is too dense for the site. It allows for 417,000 Square feet of buildings and related structures, including 112 housing units and 10 overnight units, and up to roughly 150,000 square feet of outdoor research area—all packed into 35 acres.

2. Prohibit Housing on Terrace Point.

Terrace Point is the last coastal meadow in Santa Cruz and its development should be reserved for coastal dependent uses. Allowing housing on this site is a mistake for several reasons:

a. <u>There is adjacent land to the east that would be suitable for housing.</u> This would allow the entire site to be used for coastal-dependent uses. However, the University has never explored the option of obtaining this land for housing in a serious way.

b. <u>On-site housing will create more daily trips than housing off-site</u>. Considering trips generated by partners of the on-site workers commute to off-site jobs, trips for school, dry cleaning, shopping, meals, etc., it is not hard to see that this results in more than the 10 weekly trips for an off-site employee.

ATTACHMENT 2

c. As the research grows, the demand for research space will exceed the allotted land. The only options are to build higher buildings or build on the open space. Woods Hole has often been used as a model for this campus, but the attached photograph shows that 4 and 5 story research buildings are built into the once sleepy fishing village because there was not enough land available.

3. Preserve Open Space in Perpetuity

The growth in demand for research buildings will eventually cause the University to ask for development in what is now claimed to be open space. So the first violation of this CLRDP will be a request to build research buildings in the open space. Preserving the open space in perpetuity can only prevent this. At a minimum, the open space should be placed in the UC Natural Reserve System.

4. Prohibit Construction on the Cafeteria and Auditorium Site

The CLRDP Prototype Site Plan (Figure 7.2 shown as Figure 46 of 66 in Exhibit C) indicates that the 300-seat auditorium and cafeteria/food service building (euphemistically called "support facilities") are to be sited east of the current NOAA/NMFS building. All development should be prohibited from this area, especially these two buildings since

a. Building on those sites will prevent inter-wetland communication of wildlife.

b. The auditorium and food service should be more centrally located for better circulation within the campus

c. Prevailing winds create food odor and noise pollution to the residents in the neighborhood to the east.

ATTACHMENT 2

5. Prohibit Armoring of Cliff

Implementation Measure 3.7.3 allows for shoreline armoring if existing structures are threatened. Shoreline armoring should not be allowed for any reason—the current structures were sited with the experts' predictions for erosion, and they should stand by their forecasted erosion rate.

6. Install Shaffer Road Railroad Crossing

Construction traffic and then ongoing traffic for the new campus will adversely impact the neighborhoods along and surrounding Delaware Avenue. A condition of certification should be the construction of a railroad crossing on Shaffer Road to create easy access to the site from State Route 1. Then the neighborhood impact will be minimal.

Sincerely,

Renwick E. Curry

Renwick E. Curry, PhD

ATTACHMENT 2

F11a

October 5, 2005

Coastal Commission
725 Front St.
Santa Cruz Ca 95060

Dear Commissioners:

I am opposed to the construction of 80 town homes on the Terrace Point property. This is an insult to everyone living in Santa Cruz who were not allowed to buy or build on this parcel - and now that UCSC owns it (via taxpayer money) they want to build town homes for their staff.

It is bad enough to continue to build these mega structures which I personally feel are not "blending" in with the environment; and now they want to add 557.000 more square feet! I approve of marine science but things are getting out of hand.

This area was to remain open for the general public to always enjoy....UCSC has enough land ON CAMPU to build housing for all their staff and future students.

Leave something for the rest of us in Santa Cruz.....this is a great place to visit and we do not need town homes in this area..

Shirley Murphy
1780 Lois Lane
Santa Cruz Ca 95062

ATTACHMENT 2

F11a

Central Coast District Office
Diane Landry, District Manager
725 Front Street, Suite 300
Santa Cruz, CA 95060-4508

Regarding: UCSC Marine Science Campus LRDP

Dear District Manager Landry:

Now is the time for the Coastal Commission to act in a manner that reflects the public will and turn down the requested application of the University to develop the Marine Science Complex at the locally known Terrace Point in Santa Cruz County.

As your Commission and staff are quite aware, the Terrace Point property was owned by Wells Fargo and proposed for substantial residential development. This proposal was fought by the public and rejected by the City Council on grounds of environmental impacts, inadequate water and sewer, and violated Greenbelt principals. Wells Fargo sold the property to the University and since then the University has been developing the area as it determines. At first they tried to appease the public by designing the structures to resemble a farming area. After a while they stopped trying and just built what they wanted. They even tried to cut off public access to the bluff as they have already done to the lagoon and beach.

It is clearly obvious that the University intends to do what it wants with the property in spite of and contrary to the wishes of the public. This is the public they should be trying to create a nonadversarial relationship with. The UCSC LRDP, and indeed the development already in place, violates all the wishes of the public and the City Council. It is therefore inconceivable that the Coastal Commission could further the goals of the University and approve the LRDP in its present configuration. I urge the Commission to reject the LRDP and instead order the University to cease development, open the area to better public access and start planning for the eventual removal of all the structures in accordance with the original wishes of the public the Commission serves.

Sincerely,

John McGuire

John McGuire
415 National Street
Santa Cruz, CA 95060

ATTACHMENT 2

RECEIVED

F11a

OCT 0 7 2005

CALIFORNIA
COASTAL COMMISSION
CENTRAL COAST AREA

Edward J. Davidson

200 Button Street #15
Santa Cruz, CA 95060
TEL/FAX 831 423-9294
October 7 2005

F11a Comments on UCSC Coastal Long Range Development Plan

Honorable Coastal Commissioners:

I generally concur with Staff findings on the UCSC CRLDP but wish to add some comments on consistency analysis on Coastal Act policies. Since the applicant is likely to accept the findings, I would hope my comments would have relevance on future Coastal Permit applications.

By way of background, the site is a fine example of the urban/rural boundary at the City of Santa Cruz western limits. Downcoast are twelve miles of urbanized coastal development; upcoast are fifty miles of mostly undeveloped, open coast to Half Moon Bay.

Most of the property had been in agricultural use until discontinued in the late 1980's. Due to the soil's high salinity from perpetual salt spray, food and fiber crops are limited to artichokes and Brussels sprouts. While the latter crop was planted, the site was too small to be economically viable, particularly where a 200-foot buffer from residences was required for pesticide drift. It should be noted that the vegetation and "wetlands" followed the cessation of agricultural uses. No mention of the soil salinity is found in either the Staff Report (p 29) or CRLDP (Exh.E, p.40).

ESHA and Wetlands Designations. For the coastal terrace (excluding the Younger lagoon area), the Coastal Act definition of ESHA (Sec. 30107.5) has been stretched beyond recognition. There are no rare habitats nor especially valuable ecosystems between the urbanized east and agricultural west. The wetlands are mostly seasonal ponding from the former agricultural grading.

Wetland W5 is a shallow depression which may hold seasonal rainfall due to lack of an outlet. It is indistinguishable from the surrounding "buffer" and contains no characteristics of a wetland. Wetland W4 is the after-storm ponding at a drop inlet whose outlet has been plugged. The drop inlet and culvert had been installed prior to construction of the mobile home park's masonry wall. The drainage plan for Basin 4 (EXH.E, p.246) should require filtering and unplugging the outlet.

Rare and Endangered Species. Required foraging habitat for raptors is excessive for the northern harrier hawk. This is commonly known as marsh hawk, a common species from Maryland to California north to the Arctic Ocean. CDFG considers it a "Species of Special Concern" due to its inclusion on the list of species subject to the Migratory Bird Act.

The California Red-legged frog was listed as a threatened species due to its decline in the San Joaquin Valley. Conversion to agriculture and predation of eggs by the introduced American Bull-frog caused the decline. However, healthy populations of CRLF are found throughout the California coast as well as the Oregon and Washington coasts, including Puget Sound. At least one Federal court has overturned the listing.

Public Access. With very minor exceptions, I agree with Staff's analysis. There is no mention of tsunami evacuation from Younger's beach nor occasional high tide stranding at the tide pools.

ATTACHMENT 2

There needs to be a correction on Exh.E, p.21 concerning the bluff-top access at De Anza MHP. Although shown on the City's Trails Plan in the Parks and Recreation Element of the General Plan (and certified LCP), the trail does not exist. Installing the trail now would require bluff alteration and would surely face resistance from the neighbors. The trail had been a requirement of the Park's Use Permit (circa 1967) but never installed.

Scenic and Visual Quality. The extended Staff analysis overstates the Coastal Act policies involved. In the final analysis, the difference between 30' and 36' building height is not noticeable from Highway One, a mile distant, nor from on-site scenic views toward the ocean.

Respectfully submitted,

Ed Davidson

Edward J. Davidson

ATTACHMENT 2

authorizations and/or authorizations ~~coastal permits approved~~ by the Coastal Commission pursuant to the Coastal Act~~.~~;

(c) Environmental documentation for the proposed development project prepared pursuant to the California Environmental Quality Act and/or the National Environmental Policy Act;

(d) All technical reports associated with the proposed development project (such as biological reports, geotechnical reports, traffic analyses, etc.), including all reports and plans required by Chapter 5 (e.g., habitat evaluation, lighting plan, circulation and parking plan, public access plan, drainage plan, utility plan, etc.);

(e) The results, including any supporting documentation, of any consultation with parties interested in, with jurisdiction over, and/or affected by the proposed development project, including consultations with Federal and State resource agencies (such as the United States Fish and Wildlife Service, California Department of Fish and Game, Regional Water Quality Control Board, etc.), and including consultations required by Chapter 5 (e.g., with the City of Santa Cruz, the Younger Lagoon Reserve Manager, etc.);

(f) All implementing mechanisms associated with the proposed development project (including but not limited to CEQA mitigation monitoring reports, legal documents, lease agreements, etc.);

(g) All correspondence received on the proposed development project; and

(h) Identification of a person (to be referred to as the Project Manager) responsible for ensuring that the proposed development project is constructed to authorized specifications, that all terms and conditions of approval are met; and that any budget shortfalls that could affect these commitments are identified and brought to the attention of decision-makers.

3. Early Coordination with the Coastal Commission

The University shall consult with the Executive Director of the Coastal Commission as early as possible in the planning of a development project with the objective of identifying issues of possible concern to the Commission. The University shall provide the Executive Director with advance information on project plans, as set forth in Section 8.2 (A), below, and undertake such other means of coordination and consultation as may be available and appropriate to specific development activities under consideration by the University. The University shall provide the Executive Director with all public notices and documentation available pursuant to the Regents' required process for authorizing development on the Campus.

4. Distribution of Project Reports to The Regents

The Director of Campus Planning shall submit a Project Report and an action recommendation to the Regents for each proposed development project.

5. Development Project Authorization by the Regents

The Regents may authorize a proposed development project based on information contained in the Project Report and any other information in the record provided that:

ADDENDUM ATTACHMENT 3

(a) The proposed development project has been reviewed in compliance with the California Environmental Quality Act (CEQA) and/or the National Environmental Policy Act (NEPA), the Regents have certified all related final CEQA and/or NEPA documents, and all conditions and/or mitigation measures identified in those CEQA and/or NEPA documents have been incorporated as part of the proposed development project;

(b) The Regents find that the proposed development project advances the objectives of this CLRDP, as set forth in Chapter 4;

(c) The proposed development has been reviewed by the Director of Younger Lagoon Reserve, and the Director's comments have been reviewed and considered; and

~~(b)~~(d) The proposed development project as modified by any conditions and/or mitigation measures incorporated as part of the project, is contained in and consistent with the certified CLRDP.

6. Development Authorization Required

No development project shall be undertaken without prior authorization in accordance with this chapter.

8.2. Notice of Impending Development

A. Provision of Advance Notice and Information to Coastal Commission

The Director shall provide the Executive Director written notice of the University's intent to submit a Notice of Impending Development at least 30 days prior to submittal of the Notice of Impending Development to the Coastal Commission. The Director shall provide the Executive Director with a preliminary copy of the Project Report as soon as it becomes available for release.

B. Recipients of Notice of Impending Development

After authorization of a development project by the Regents and at least 30 working days prior to the beginning of construction, the Director shall send via first-class mail a written Notice of Impending Development to the following persons and agencies informing them of the Regents decision:

1. The Executive Director of the California Coastal Commission,
2. The Director of Planning at the City of Santa Cruz,
3. The Director of Planning at the County of Santa Cruz,
4. Owners of each parcel of record within 100 feet (excluding road rights-of-way) of the UCSC Marine Science Campus,
5. Persons residing on properties located within 100 feet (excluding road rights-of-way) of the UCSC Marine Science Campus,

6. The manager of De Anza Mobile Home Park,

7. The manager or director of each facility on the Campus that is operated by an entity other than UCSC (e.g., the California Department of Fish and Game's Marine Wildlife Center) , all persons occupying on-Campus housing, and the manager/director of the federal inholding surrounded by the Campus,

8. The manager/director of Younger Lagoon Reserve,

9. All other persons and agencies who have requested in writing to receive such notice, either for the project that is the subject of the notice and/or for all Marine Science Campus development projects, and

10. Persons and agencies that are known by the University to be interested in the specific development project that is the subject of the notice (e.g. persons and agencies that submitted testimony or other comments during the CEQA/NEPA and/or Board of Regents process for the project).

C. Contents of Notice of Impending Development

The Notice of Impending Development shall be clearly titled as such and shall, at a minimum, include the following information regarding the ~~approved~~ development project authorization:

1. The project description and location;

2. The Regents' decision on the project;

3. The expected date of commencement of construction;

4. The appropriate UCSC contact person(s) and/or designated Project Manager and their contact information;

5. The process for Coastal Commission review of the development project (including contact information for Commission staff); and

6. A list of recipients of the Notice of Impending Development.

D. Posting Requirements for Notice of Impending Development

The Director shall post the Notice of Impending Development in conspicuous locations at the proposed development project site no later than the date that the Notice of Impending Development is sent pursuant to Section 8.2B above and at least 30 working days prior to the beginning of construction. The Notices shall be subject to the following parameters:

1. Notices that are posted shall be clearly visible and printed with black text/graphics on a brightly hued background (e.g., golden-rod yellow) using card-stock weight (at the least) paper or functional equivalent (e.g., wood, cardboard, corrugated plastic (or "coroplast"), plastic, vinyl, metal, etc). Notices shall be laminated or otherwise weatherproofed so as to be legible at all times, and shall be at least 8½ inches by 11

inches in size, and no greater than 4 feet by 8 feet in size.

2. Notices shall be posted against a solid background at least as large as the notice itself (e.g., posting a card-stock notice on an 8½ inch by 11 inch piece of plywood attached to a stake) or shall be printed onto an integral solid background (e.g., coroplast), and shall be posted at a readable height (i.e., approximately three to six feet).

3. Notices shall be posted at locations on the perimeter (and/or within the perimeter as appropriate) of the proposed development project site where the site intersects public use areas (streets, paths, parking lots, etc.). Notices shall also be posted at: the main entrance to the Campus (at the Shaffer Road/Delaware Avenue intersection); the public parking lot area nearest to the main entrance to the Campus; and the trailhead nearest to the main entrance to the Campus (i.e., the trailhead to the public trail providing access to the south along the eastern portion of the Campus).

4. Notices that do not meet the criteria listed above, that otherwise become illegible, and/or that fall to the ground or disappear (for whatever reason) must be immediately replaced. All notices shall remain posted until the effective date of development project ~~approval~~ authorization (per Section 8.6 below).

E. Supporting Information for the Notice of Impending Development

Supporting information sufficient to allow the reviewer to determine whether the proposed development project is consistent with the certified CLRDP shall accompany the Notice of Impending Development mailed to the Executive Director and to persons, parties, and/or agencies requesting such information. At a minimum, the supporting information shall include:

1. The Project Report; updated to include any changes or additions made in the course of review by the University, and provided in accordance with the following provisions: ~~c~~Copies of lengthy and/or oversized studies, reports, and technical materials included as part of the Project Report shall be provided only to the Executive Director and to interested persons and agencies that specifically request these materials;

2. Any final ~~approval~~ authorization documents from the Regents (e.g., resolutions, signed/stamped certification, etc.) not included in the ~~Final~~ Project Report;

3. A separate document that identifies all project conditions and mitigations and explains how compliance will be achieved and measured for each;

4. Copies of all correspondence received on the proposed development project; and

5. For the Executive Director only:

   (a) A mailing list with names and addresses for each of the persons and/or agencies listed in Section 8.2(B), above, where the list is labeled and organized by each of the categories listed;

   (b) One set of plain (i.e., unadorned with no return address) regular business size (9½ inches by 4⅛ inches) envelopes stamped with first class postage (metered postage is not acceptable) addressed to each of the listed addressees from Section 8.2(B), above, for each Commission hearing on the matter (i.e., if there are multiple

Commission hearings on the matter, then multiple such envelop sets shall be provided as directed by the Executive Director); and,

(c) Evidence that the Notice of Impending Development has been posted pursuant to the parameters of Section 8.2(D), above (e.g., evidence might include a site plan with the notice locations noted and/or photos of the notice locations attached).

8.3. Development Excluded from Development Review Procedures

Pursuant to Public Resources Code Section 30610 and California Code of Regulations, Title 14, Sections 13511(g), ~~13550 (a), 13250, 13252, and 13253,~~ the ~~forms of~~ development project categories identified in this section are excluded from the requirements of Sections ~~8.1 and~~ 8.2, ~~above~~, and Section 8.4, ~~below,~~ except where any such development project: (1) occurs on tidelands, ~~or~~ submerged lands, and/or public trust lands, whether filled or unfilled, and/or on a beach, and/or immediately adjacent to the beach or mean high tide line; (2), ~~and except where the exclusion prohibited by a~~ would conflict with the terms or conditions of a ~~coastal development permit or~~ Coastal Commission authorization and/or development project authorization under the CLRDP; (3) is not contained in the CLRDP; and/or (4) would violate or be inconsistent with the CLRDP.

~~The Director shall maintain a Record of Excluded Development identifying all projects that have been authorized as excluded from development review in accordance with this section. This record shall include a brief description of the project and its location and shall be available for review by members of the public and representatives of the California Coastal Commission.~~

A. Installation, testing, and placement in service or the replacement of, any necessary utility connection between an existing service facility and any development project authorized pursuant to this Chapter provided: (a) the previously authorized development project included review of the utility connection development; and (b) the utility connection development has no adverse impacts on coastal resources, including scenic resources, that have not been mitigated.; For the purpose of this exclusion category, utility connection includes ~~including~~ utility hook-up activities described in the document entitled "Repair, Maintenance and Utility Hook-up Exclusions from Permit Requirements," adopted by the Coastal Commission on September 5, 1978, unless the activities include a risk of substantial adverse impact on public access, environmentally sensitive habitat area, wetlands, or public views to the ocean.

B. Improvements to existing structures other than public works facilities, including attached fixtures and signs, attached structures, and landscaping in the immediate vicinity provided all the following requirements are met:

1. The structure or improvement is not located on a beach, in a wetland, seaward of the mean high tide line, ~~or~~ in an environmentally sensitive habitat area, in a designated scenic view corridor, or within 50 feet of the edge of the coastal bluff,

2. The improvement does not include any significant alteration of landforms, including the removal or placement of ~~significant~~ vegetation,

3. The improvement does not require the use of mechanized equipment within 50 feet of the top edge of a coastal bluff, ~~and~~

4. The improvement does not exceed 10 percent of existing floor area of the structure being improved or increase height by more than 10 percent or constitute an additional improvement of 10 percent or less where an improvement to the structure has previously been undertaken pursuant to this exemption.

5. The improvement does not included the expansion or construction of water wells or septic systems.

6. In the event that the Coastal Commission has declared by resolution after public hearing that there is a critically short water supply that must be maintained for protection of coastal recreation or public recreational use in the area of the Campus, the construction of any specified major water using development including but not limited to swimming pools or the construction or extension of any landscaping irrigation system, and

7. The improvement does not change the intensity of use of the structure.

C. Repair or maintenance activities that do not result in an addition to, or enlargement or expansion of, the object of those repair and maintenance activities~~, including those described in the document entitled "Repair, Maintenance and Utility Hook-up Exclusions from Permit Requirements," adopted by the Coastal Commission on September 5, 1978~~, provided the activity does not include:

1. Any method of repair or maintenance of a shoreline work that involves substantial alteration of the foundation of the structure; placement of rip-rap or other solid material on a beach or in coastal waters or wetlands, or on a shoreline protective work; replacement of 20 percent or more of the materials of an existing structure with materials of a different kind; or the presence of mechanized construction equipment or construction materials on any sand area or bluff, or environmentally sensitive habitat area, or within 20 feet of coastal waters.

2. Any repair or maintenance to facilities, structures, or work located in an environmentally sensitive habitat area, any sand area, within 50 feet of the edge of a coastal bluff or environmentally sensitive habitat area, or within 20 feet of coastal waters or streams, that include the placement or removal of rip-rap, rocks, sand, or other beach materials or any other form of solid material or the presence of mechanized equipment.

3. Any maintenance dredging or disposal of dredge materials that involves the dredging of 100,000 cubic yards or more within a twelve (12) month period; the placement of dredged spoils of any quantity within an environmentally sensitive habitat area, on any sand area, within 50 feet of the edge of a coastal bluff or environmentally sensitive habitat area, or within 20 feet of coastal waters or streams; or the removal, sale, or disposal of dredged spoils of any quantity that would be suitable for beach nourishment in an area the commission has declared by resolution to have a critically short sand supply that must be maintained for protection of structures, coastal access or public recreational use.

4. Repair and/or maintenance activities described in the document entitled "Repair, Maintenance and Utility Hook-up Exclusions from Permit Requirements," adopted by the Coastal Commission on September 5, 1978 that have a risk of substantial adverse impact on public access, environmentally sensitive habitat area, wetlands, or public views to the ocean.

D. The replacement of any structure, other than a public works facility, destroyed by disaster, provided the requirements of this subsection are met. "~~Natural d~~Disaster" means any situation in which the force or forces that destroyed the structure to be replaced were beyond the control of ~~UCSC~~its owner.

1. The replacement structure conforms to all applicable CLRDP regulations,

2. The use of the replacement structure is the same as the destroyed structure,

3. The replacement structure does not exceed either floor area, height, or bulk of the destroyed structure by more than 10 percent, ~~and~~

4. The replacement structure is sited in the same location on the affected property as the destroyed structure~~.~~, and

5. Repair and maintenance of the seawater intake system that does not result in an addition to, or enlargement or expansion of, the seawater intake system and does not require work within an environmentally sensitive habitat area, within 50 feet of a coastal bluff or environmentally sensitive habitat area, or within 20 feet of coastal waters.

E. Development authorized by a coastal development permit issued by the Coastal Commission prior to certification of this CLRDP.

The Director shall maintain a record of all development excluded from the ~~regular~~ noticing and Commission review ~~and authorization~~ procedures of this ~~CLRDP~~ chapter in accordance with this section. This record shall include a brief description of the project and its location, the rationale for its exclusion, shall be included in the annual written CLRDP monitoring report to be produced pursuant to Section 8.8, and shall otherwise be available for review by members of the public and representatives of the California Coastal Commission. Where feasible, advance notice of anticipated excluded development activity shall be provided to the Commission and the public.

8.4. Coastal Commission Review of CLRDP Development Projects

The Coastal Commission shall review development projects authorized by the University for consistency with the CLR~~P~~DP in accordance with the procedures of this section.

A. Filing the Notice of Impending Development

Within ten days of receipt of the Notice of Impending Development and all applicable supporting information (as described in Section 8.2, above) for an ~~impending~~ proposed development project, the Executive Director of the Coastal Commission shall review the submittal and shall determine whether additional information is necessary to determine if the proposed development project is consistent with the CLRDP, and if additional information is deemed necessary, shall request such information from the Director of Campus Planning. The Notice of Impending Development shall be deemed filed as follows:

1. If the Executive Director does not respond to the Notice of Impending Development within ten days following its receipt, the Notice shall be deemed filed on the tenth day following its receipt by the Executive Director, or

2. If the Executive Director has ~~timely~~ requested additional supporting information needed to determine consistency with the CLRDP within ~~,~~ ten days following receipt of the Notice, then ~~that information by the Executive Director,~~ the Notice of Impending Development shall be deemed filed when the Executive Director determines that all necessary supporting information has been received. ~~unless the Planning Director has received notice that the supplementary information is deficient in meeting the Executive Director's request. Information submitted to correct any such deficiency shall be subject to the notice and timing provisions of this subsection.~~

B. Coastal Commission Hearing Deadline

The thirtieth working day following the day the Notice of Impending Development is deemed filed is the Hearing Deadline. If the Commission fails to act upon the Notice on or before the Hearing Deadline, the development project shall be deemed consistent with the certified CLRDP. The Hearing Deadline may be extended if, on or before the Hearing Deadline, the Director of Campus Planning waives the University's right to a hearing within thirty working days, and agrees to an extension to a date certain, no more than three months from the Hearing Deadline, to allow for Commission review of the proposed development project at a later hearing.

C. Coastal Commission Review and Determination of Consistency with CLRDP

The Executive Director shall report in writing to the Commission the pendency of the development project. The Coastal Commission shall review the proposed development project at a scheduled public hearing prior to the Hearing Deadline.

If the Executive Director determines that one or more proposed development projects are de minimis with respect to the purposes and provisions of the CLRDP, they may be scheduled for Commission review at one public hearing during which all such items may be taken up as a single matter pursuant to the Commission's consent calendar procedures (California Code Regulations, Title 14, Sections 13101 through 13103).

For all other proposed development projects, the Executive Director's report to the Commission shall include a description sufficient to allow the Commission to understand the location, nature, and extent of the proposed development project, and a discussion and recommendation regarding the consistency of the proposed development project with the certified CLRDP. On or before the Hearing Deadline the Coastal Commission shall make one of the following determinations:

1. The Commission may determine that the proposed development project is consistent with the certified CLRDP;

2. The Commission may determine that conditions are necessary to render the proposed development project consistent with the certified CLRDP and identify the necessary conditions; or

3. The Commission may determine that the development project is not ~~consistent~~ contained in~~with~~ the certified CLRDP.

Following Commission action, the Executive Director shall inform the Director of Campus Planning of the Commission's determination and shall forward any conditions associated

with it. If the Commission has determined that the development project is not ~~consistent~~ contained in~~with~~ the CLRDP ~~and has not adopted conditions that would render it consistent with the CLRDP~~, the development project shall not be undertaken. If the Commission has failed to act on or before the Hearing Deadline, the proposed development project shall be deemed consistent with the CLRDP.

Coastal Commission review of an impending development project shall be deemed complete on the date of any of the Commission determinations identified in this section or, where the Commission has made no determination, upon the Hearing Deadline. Upon completion of Commission review, the University may undertake the development project provided that any conditions imposed by the Commission to render the development consistent with the CLRDP have been incorporated into the project.

8.5 Amendment of Development Projects

A development project that has been deemed consistent with the CLRDP by the Regents and/or the Coastal Commission may be amended in the same manner specified by this CLRDP for the initial review of proposed development projects. Development that ~~is not subject to the Coastal Commission's direct permit or jurisdiction and other direct review authority (see Section 8.7) that~~ requires amendment of a pre-CLRDP Commission action shall be pursued through the Coastal Commission directly, unless the Executive Director, in consultation with the Planning Director, or the Commission determines that de novo review under CLRDP procedures is more appropriate. The determination shall be made on the basis of the extent to which the proposed change significantly alters the effect of terms or conditions ~~necessary of~~to the original approval. In either case, the standard of review is the certified CLRDP.

8.6 Effective Date and Expiration Date of Project Authorizations; Extension of Authorizations

A. Effective Date of a Development Project Authorizations

Unless expressly stated otherwise in the approval documents, the effective date of the authorization of a development project shall be the date the Coastal Commission's review of the proposed development project is deemed complete pursuant to Section 8.4 (C)

B. Expiration Date of a Development Project Authorizations

Unless explicitly stated otherwise in the approval documents, the expiration date of a development project authorization pursuant to this CLRDP shall be three years following its effective date. Thereafter, development of the project may not commence unless the authorization has been extended as provided herein, or a new authorization and review by the Commission has been completed in accordance with this CLRDP in the same manner specified by this CLRDP for the initial review of proposed development projects.

C. Extension of Development Project Authorizations

The expiration date of a development project authorization may be extended not more than twice for a period not to exceed one year each time if the Planning Director determines that there are no changed circumstances that may affect the development project's consistency with the CLRDP. In such a case, before the expiration of the authorization, the Planning Director shall submit to the Executive Director notice of intent to extend authorization of the development together with supporting information sufficient for the Executive Director to determine whether there are changed circumstances that may affect the development's

consistency with the CLRDP, including at a minimum the supporting information described in Section 8.2(E) above. The submittal shall stay the expiration of the authorization and the start of construction.

If the Executive Director determines that the extension is consistent with the CLRDP, notice of the determination shall be posted at the project site by the University and the Executive Director shall mailed the notice to all persons and agencies on the original mailing list for the project and all persons and agencies known by the Executive Director to be interested in the proposed extension. The notice shall include a summary of the extension approval process and information on contacting the University and the Coastal Commission concerning the proposed extension. If no written objection is received at the Commission office within 10 working days of posting and mailing ~~ublishing~~ notice, the determination of consistency shall be conclusive.

If the Executive Director determines that due to changed circumstances the ~~impending~~ development project may not be consistent with the CLRDP, the proposed extension shall be reported to the Commission at a noticed public hearing. The report shall include any pertinent changes in circumstances relating to the proposed extension. If three or more commissioners object to the extension on grounds the development may not be consistent with the CLRDP, the University shall initiate a new authorization and review process for the proposed development project in the same manner specified by this CLRDP for the initial review of proposed development projects. ~~matter shall be set for hearing as though it were a new Notice of Impending Development.~~

Successive extensions of an authorization may not exceed one year each.

8.7 Coastal Commission's Permit Jurisdiction

After certification of the CLRDP, the Coastal Commission continues to exercise permit jurisdiction over development on tidelands, ~~and~~ submerged lands, and/or ~~any other~~ public trust lands, whether filled or unfilled, on and adjacent to the campus. Under the Federal Coastal Zone Management Act, the Commission retains federal consistency review authority over federal activities and federal permitted activities on or adjacent to the campus. The CLRDP shall provide non-binding guidance for such permit and federal consistency review by the Commission.

The Commission also retains permit jurisdiction over development authorized by Commission action before the date of CLRDP certification. ~~Any proposal to expand such existing development shall be subject to the development review procedures of the CLRDP~~. For any proposal to modify such existing development, the determination of whether to treat the proposal as an amendment to the Commission authorization or as a new development subject to CLRDP review shall be made on a case-by-case basis as provided in Section 8.5 (Amendment of Development Projects), above.

8.8 Monitoring of Development Projects

The Regents shall be responsible for ensuring that all terms, and conditions, and mitigations associated with approved development projects, including but not limited to mitigation measures and CEQA/NEPA requirements, are fulfilled. Project managers and other UC personnel assigned responsibility to implement and/or monitor approved development projects shall contact the Director of Campus Planning annually by the end of each calendar year to provide information regarding compliance with the terms and conditions of each CLRDP approval that year and continuing obligations from approvals in previous years. The Planning Director shall verify that all terms and conditions have been timely fulfilled and shall

update each project's list of conditions and mitigations (see Section 8.2 (E), above) with compliance information on at least a yearly basis. The Director shall also review as-built project plans and verify that development has been constructed consistent with them, including affixing written documentation to that effect to the as-built plans. The Director shall maintain the updated copies of the required approval documents and shall maintain the verified as-built plans, and they shall be available for public review.

The Director shall include within on-going development monitoring programs of the University an annual written CLRDP monitoring report that includes a cumulative and calendar year summary of: CLRDP-approved development project compliance; development excluded from Sections 8.2 and 8.4 by virtue of Section 8.3; emergency authorizations pursuant to Section 8.10; enforcement undertaken pursuant to Section 8.9; CLRDP-required annual monitoring reports (e.g., the water quality reports, etc.); status of CLRDP-required improvements and other University commitments; and any comments received on CLRDP implementation. The Director shall maintain a record of these annual summary reports in the Director's office, and they shall be available for public review. The Director shall submit a copy of each annual report to the Executive Director within 10 days of its completion.

8.9 Enforcement

In addition to all other available remedies, the provisions of the CLRDP and the Coastal Act shall be enforceable pursuant to Chapter Nine of Public Resources Code Division 20 ~~Public Resources Code Sections 30800-30801 and 30803-30806~~. Any person who performs or undertakes development on the Marine Science Campus that is (a) in violation of the CLRDP , (b) inconsistent with any previous Coastal Commission authorization (including coastal development permit approval), and/or (c) inconsistent with any CLRDP development project authorization may, in addition to any other penalties or remedies, be civilly liable in accordance with the provisions of Public Resources Code Sections 30820, 30821.6 and 30822.

The Regents shall ensure that development on the Campus is consistent with the CLRDP and is consistent with the terms and conditions of development project ~~approvals~~ authorizations pursuant to the CLRDP. The Director of Campus Planning shall investigate in a reasonable time allegations regarding development being undertaken inconsistent with the provisions of the CLRDP and/or CLRDP development project ~~approvals~~authorizations, and shall attempt to resolve any such inconsistencies discovered. The Executive Director and/or the Coastal Commission may also enforce the terms of the CLRDP and the Coastal Act.

8.10 Emergency Authorizations

A. Definition of Emergency

For the purpose of this Section the term "emergency" means: a sudden unexpected occurrence demanding immediate action to prevent or mitigate loss or damage to life, health, property or essential public services.

B. Chancellor's Authority

In the event of an emergency, the UCSC Chancellor may authorize emergency ~~work~~development on the Campus in compliance with this Section. ~~Emergency work in~~

~~within areas subject to the Coastal Commission's permit jurisdiction is addressed in Subsection H, below.~~

C. Extreme Emergency Requiring Immediate Action

If an emergency is so extreme that it does not allow time for the written requests, authorizations, and coordination described in this section, the Chancellor and persons undertaking any emergency ~~work~~development shall adhere as closely as reasonably possible to these procedures. In such a case, the requirements of this section for written request and authorization shall be fulfilled no later than seven days after the emergency action is begun.

D. Request for Emergency Authorization.

A request for an emergency authorization shall be filed with the UCSC Chancellor in writing if time allows, or in person or by telephone if time does not allow. In such a case, the written request and authorization shall be provided as described in subsection (C), above. The request shall include, at a minimum:

1. The nature and location of the emergency,
2. The cause of the emergency, insofar as this can be established, .
3. The remedial, protective, and/or preventative development proposed to address the emergency, including an evaluation of potential alternatives if time allows, and
4. The circumstances associated with the emergency that justify the emergency development proposed, including the probable consequences of failing to take action.

E. Chancellor's Responsibilities

Prior to authorizing emergency development and, to the extent time allows, the UCSC Chancellor or his/her designee shall:

1. Verify the facts associated with an emergency authorization request, including the existence and nature of the emergency,
2. Coordinate with planning staff in the Central Coast District office of the California Coastal Commission as to the nature of the emergency and the scope of the emergency development proposed, and
3. Provide public notice of the emergency ~~work~~development, with the extent and type of notice determined on the basis of the nature of emergency.

F. Findings Required for Authorization of Emergency ~~Work~~Development

The UCSC Chancellor may authorize emergency ~~work~~development on the Campus if he/she first finds that:

1. There has been a sudden, unexpected occurrence demanding immediate action to prevent or mitigate loss or damage to life, health, property, or essential public services,

2. The emergency requires action more quickly than could occur through the CLRDP's normal development review procedures, and the emergency ~~work~~development can and will be completed within 30 days unless otherwise specified in the emergency authorization,

3. Public comment on the proposed emergency development has been reviewed, if time allows,

4. To the extent time allows, the Chancellor has coordinated with planning staff in the Central Coast District office of the California Coastal Commission and/or the Executive Director pursuant to CLRDP Section 8.10(E),

5. The emergency development proposed is the minimum necessary to address the emergency and, to the maximum extent feasible, is the least environmentally damaging temporary alternative for addressing the emergency, and

6. The emergency development proposed would be consistent with the CLRDP and/or would not impede attainment of CLRDP requirements following completion of the emergency development.

G. Form of Emergency Authorization

The emergency authorization shall be a written document and, at a minimum, shall include:

1. The date of issuance;

2. The scope of ~~work~~development to be performed;

3. The timeframe for completion of the emergency ~~work~~development (not to exceed 30 days);

4. Terms and conditions of the authorization;

5. A condition indicating that the emergency ~~work~~development must be completed within 30 days, that the ~~work~~development is considered temporary unless it is subsequently authorized through regular CLRDP review procedures, and that regular CLRDP review must commence within 30 days of issuance of the emergency authorization.

6. A condition requiring removal of the emergency development and restoration of the site to its pre-emergency development state if: (a) a Project Report for a proposed development project to authorize the emergency development on a permanent basis has not been submitted to the Regents within 90 days of the date of issuance, or (b) an effective development project authorization has not been obtained within 150 days of the date of issuance, whichever comes first; and

7. A condition stating that the emergency authorization shall expire and become void within ten days of issuance if it is not exercised, or if the emergency ceases to exist.

~~H. Emergency Work in Areas Subject to Coastal Commission Permit Jurisdiction~~

~~In the event of an emergency necessitating work on land adjacent to the campus and subject to the Commission's permit jurisdiction, including tidelands and submerged lands adjacent~~

~~to the Campus, the procedures of this Section 8.10 shall apply, with the following modifications and limitations.~~

1. ~~Emergency work by the University shall be limited to extreme emergencies in which immediate action is needed to protect life or public property or to maintain public services.~~

2. ~~In such a case, the Chancellor shall notify the Executive Director or his/her designated representative at the earliest possible time after learning of the emergency. If the emergency work has not already been undertaken, the Chancellor shall consult with the Executive Director or his/her representative before authorizing any emergency work.~~

~~G~~H. Notice of Emergency Authorization

As soon as possible and no later than 14 days after the emergency, the Chancellor shall submit a written Notice of Emergency Authorization to the Executive Director of the Coastal Commission. The Notice shall include information documenting compliance with this section including the written emergency authorization.

8.11 Non-Conforming Structures

A. "Non-conforming structures" means existing structures that: (1) existed prior to the certification date of this CLRDP; (2) were and remain lawfully authorized pursuant to the Coastal Act by coastal development permit or other authorization (e.g., a coastal development permit waiver, a determination that no permit was required, etc.); (3) were lawfully authorized by all other regulations applicable at the time of their original development, and (4) do not conform to the policies and standards of this certified CLRDP, or any subsequent amendments thereto.

B. Development projects that include non-conforming structures shall require that such structures be brought into conformance with the policies and requirements of the CLRDP.

9. Capital Improvement Program

The primary purpose of this chapter is to set forth a schedule of programmed improvements for the Marine Science Campus. This Capital Improvement Program implements key elements of the CLRDP and should be considered enforceable requirements of the CLRDP pursuant to Chapter 8 and interpreted in conjunction with the narrative and diagrams of previous chapters and subsequent appendices. This Capital Improvement Program is intended to address the scheduling of certain infrastructure improvements and habitat enhancements that will be undertaken by the University, including in conjunction with the Marine Science Campus Building Program.

The Capital Improvement Program consists of four sections, which are presented below. These four sections are:

9.1 Public Access Improvements

9.2 Habitat Enhancements

9.3 Circulation Improvements

9.4 Drainage System Improvements

9.1. Public Access Improvements

This section sets forth the implementation schedule for specified public access improvements on the Marine Science Campus consistent with this CLRDP.

9.1.1. Public and Controlled Access Trails

The University shall enhance existing public and controlled access trails and construct new public trails and related amenities on the Marine Science Campus consistent with the parameters for such trail improvements specified in this CLRDP, including Sections 5.6 and 6.4. Trail improvements shall be completed as shown in Figures 9.1 and 9.2.

Fig. 9.1 Coastal Access and Recreation Implementation Program

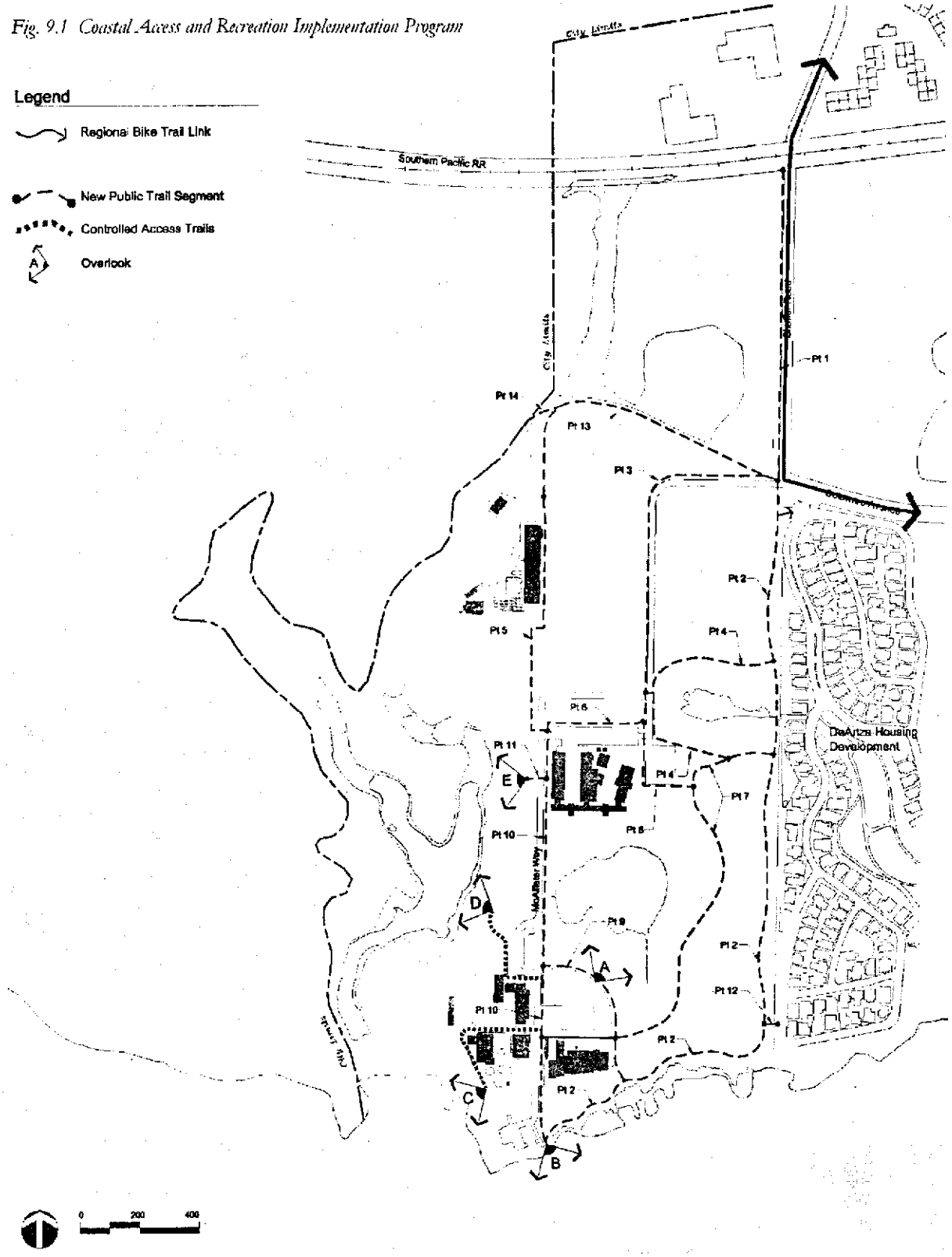

Fig. 9.2 Timing of Public Trail Improvements

Trail Segment	*Timing of Improvement*
Existing Public Trails	Improvements to existing trails (i.e., those trails identified as "Public Trails" on Figure 2.27) shall be completed when the first 10 percent of new building floor area (square footage) contained in the Marine Science Campus Building Program set forth in Subsection 5.2.1 is completed and prior to occupancy and/or use of the development that caused the 10% threshold to be reached, or when directed in this figure otherwise, whichever comes first.
Public Trail (PT) 1	Improvement of this trail segment shall be undertaken ~~and completed~~ concurrent ~~with the~~any new development ~~of any new building~~ in the Upper Terrace development zone of the Marine Science Campus and shall be completed prior to occupancy and/or use of the development.
PT 2	Improvement of this trail segment shall be undertaken ~~and completed~~ concurrent with the development of any new building in the Lower or Middle Terrace development zones of the Marine Science Campus and shall be completed prior to occupancy and/or use of the building.
PT 3	Improvement of this trail segment shall be undertaken concurrent with the development of the adjacent portion of realigned campus street and shall be completed prior to use of the realigned campus street.
PT 4	Improvement of this trail segment shall be undertaken ~~and completed~~ concurrent with the development of any new building in the Middle Terrace development zone of the Marine Science Campus and shall be completed prior to occupancy and/or use of the building.
PT 5	Improvement of this trail segment shall be undertaken ~~and completed~~ concurrent with PT 3 and subject to the same completion requirements, or concurrent with the development of any adjacent new buildings where trail improvements shall be completed prior to occupancy and/or use of the building, whichever comes first.
PT 6	Improvement of this trail segment shall be undertaken ~~and completed~~ concurrent with PT 3 and subject to the same completion requirements, or concurrent with PT 5 and subject to the same completion requirements, whichever comes first.
PT 7 and PT 8	Improvement of these trail segments shall be undertaken and completed concurrent with PT 3 and subject to the same completion requirements, or concurrent with the development of any support facilities and/or parking areas east of the NOAA Fisheries inholding where trail improvements shall be completed prior to occupancy and/or use of any facilities or parking areas, whichever comes first.
PT 9	Improvement of this trail segment shall be undertaken ~~and completed~~ concurrent with the development of any new building in

	the Lower Terrace development zone of the Marine Science Campus and shall be completed prior to occupancy and/or use of the building.
PT 10 and PT 11	Improvement of these trail segments shall be undertaken ~~and completed~~ concurrent with the development of any new building in the Lower or Middle Terrace development zones of the Marine Science Campus and shall be completed prior to occupancy and/or use of the building.
PT 12	Improvement of this trail segment shall be undertaken ~~and completed~~ concurrent with the development of any new building in the Lower Terrace development zone of the Marine Science Campus and shall be completed prior to occupancy and/or use of the building.
PT 13 and PT 14	Improvement of ~~this~~ these trail segments shall be undertaken ~~and completed~~ concurrent with PT 3 and subject to the same completion requirements.
PT 15	Improvement of this trail segment (for directional signs and gate improvements) shall be completed within six months of CLRDP certification. Other improvements shall be undertaken and completed as demand dictates. Improvements shall be required when significant obstacles to continued public access are documented.
~~PT 14~~	~~Improvement of these this trail segments shall be undertaken and completed concurrent with the opening of a public trail west of the Campus.~~

9.1.2 Overlooks

The University shall construct new overlooks and improve existing overlooks on the Marine Science Campus consistent with the parameters for such overlook improvements specified in this CLRDP, including Section 5.6 and Chapter 7. These new and improved overlooks shall be completed as shown in Figure 9.3

Fig. 9.3 Timing of Overlook Improvements

Overlook	Timing of Improvement
All Overlooks (A – F)	All overlook improvements shall be completed when the first 10 percent of new building floor area (square footage) contained in the Marine Science Campus Building Program set forth in Subsection 5.2.1 is completed and prior to occupancy and/or use of the development that caused the 10% threshold to be reached, or when directed in this figure otherwise, whichever comes first.

Overlook A	This overlook shall be constructed ~~and completed~~ concurrent with the development of any new building in the Lower or Middle Terrace development zones of the Marine Science Campus and shall be completed prior to occupancy and/or use of the building.
Overlook B	This overlook shall be improved by installing beach access directional signs and gate improvements for the beach access trail (i.e., for PT 15 in Figures 9.1 and 9.2) and those improvements completed and the trail open to public use within six months of CLRDP certification. Other improvements shall be constructed ~~and completed~~ concurrent with the development of any new building in the Lower or Middle Terrace development zones of the Marine Science Campus and shall be completed prior to occupancy and/or use of the building.
Overlook C	This overlook shall be improved ~~and completed~~ concurrent with the development of any new building in the Lower Terrace development zone of the Marine Science Campus and shall be completed prior to occupancy and/or use of the building.
Overlook D	This overlook shall be improved ~~and completed~~ concurrent with the development of any new building in the Lower or Middle Terrace development zones of the Marine Science Campus and shall be completed prior to occupancy and/or use of the building.
Overlook E	This overlook shall be constructed ~~and completed~~ concurrent with the development of any new building in the Lower or Middle Terrace development zones of the Marine Science Campus and shall be completed prior to occupancy and/or use of the building.
Overlook F	This overlook shall be constructed ~~and completed~~ concurrent with the development of any new building in the Lower or Middle Terrace development zones of the Marine Science Campus and shall be completed prior to occupancy and/or use of the building.

9.1.3 Coastal Public Access Parking

The University shall construct and/or dedicate new and/or existing parking on the Marine Science Campus consistent with the parameters for such parking improvements and their use specified in this CLRDP, including Sections 5.5 and 6.3, to provide dedicated coastal public access parking. In order to implement the CLRDP's public access parking use parameters, all Campus parking signs and related information must be updated, and a permit parking distribution system put in place. Specifically, signs with updated information must ~~be~~ replace existing Campus parking signs, information regarding CLRDP parking use parameters must be made available to Campus users and visitors, and a convenient means for obtaining free coastal public access parking permits provided to the public. As new parking areas are developed, Campus parking information must be regularly updated to reflect these new parking areas. Coastal public access parking improvements shall be completed as shown in Figure 9.4.

Fig. 9.4 Timing of Coastal Public Access Parking Improvements

Type of Improvement	*Timing of Improvement*
Campuswide updated signs and information regarding CLRDP coastal public access parking availability consistent with Policy 5.3 and its implementation measures.	Improvements shall be completed within ~~one year~~six months of CLRDP certification.

~~Updated signs and information identifying coastal public access parking areas within the Lower Terrace development zone.~~	~~Improvements shall be completed within one year of CLRDP certification.~~
New permit parking system.	Improvements shall be completed within six months of CLRDP certification ~~with the development of any new non-ancillary building in the Middle Terrace development zone~~.
Updated signs and information identifying coastal public access parking areas and their use parameters.	Improvements shall be completed concurrent with each new parking-related development on the Marine Science Campus, and shall be completed prior to use of each development.
At least 15 dedicated public access parking spaces ~~at~~ adjacent to the Shaffer Road/Delaware Avenue intersection.	Improvements shall be undertaken ~~and completed~~ concurrent with ~~the~~ any new development ~~of any new buildings~~ in the Upper Terrace development zone of the Marine Science Campus and shall be completed prior to occupancy and/or use of the development, or improvements shall be completed ~~concurrent~~ when the first 10 percent of new building floor area (square footage) contained in the Marine Science Campus Building Program set forth in Subsection 5.2.1 is completed and prior to occupancy and/or use of the development that caused the 10% threshold to be reached, whichever comes first.
At least 5 public access parking spaces in the Middle Terrace development zone located adjacent to the support facilities in that portion of the support facilities' parking area that is located as close to the public trail as possible.	Improvements shall be ~~completed~~ undertaken concurrent with the development of any ~~new~~ support facilities and/or any support facility parking ~~facilities~~ areas in the Middle Terrace development zone (e.g., east of the NOAA Fisheries ~~Building~~ inholding) and shall be completed prior to occupancy and/or use of the development.

9.2 Natural Resource Improvements (Protection, Enhancement, Management, and Maintenance)

The CLRDP commits the University to natural resource protection, enhancement, management, and maintenance of areas outside of the Campus development zones. As guided by Section 5.3 and other portions of the CLRDP, the goals, management measures, performance standards, and implementation schedule identified in the CLRDP Resource Management Plan (Appendix A) set forth the implementation schedule for natural resource improvements on the Marine Science Campus. Among other things, the Resource Management Plan requires wetland restoration and enhancement, wildlife corridor enhancement, grassland management, native plant revegetation, new Campus access road location, wetland berming, and long-term management and maintenance of Campus natural resources.

9.3 Circulation Improvements

This section sets forth the implementation schedule for specified circulation improvements on the Marine Science Campus consistent with this CLRDP.

9.3.1 Shaffer Road

The University shall make improvements to Shaffer Road consistent with the parameters for such improvements specified in this CLRDP, including Section 5.5 and the CLRDP Resource Management Plan. Such improvements shall be undertaken ~~and completed~~ concurrent with any new building in the

Upper Terrace development zone of the Marine Science Campus, and shall be completed prior to occupancy and/or use of the building, or improvements shall be completed when the first 10 percent of new building floor area (square footage) contained in the Marine Science Campus Building Program set forth in Subsection 5.2.1 is completed and prior to occupancy and/or use of the development that caused the 10% threshold to be reached, whichever comes first. All Shaffer Road improvements shall be coordinated with the City of Santa Cruz.

9.3.2 *Realigned Main Campus Street*

The University shall realign the main campus street of the Marine Science Campus consistent with the parameters for such improvements specified in this CLRDP, including Section 5.5, Figure 5.4, and the CLRDP Resource Management Plan. This improvement shall be undertaken ~~and completed~~ concurrent with the development of any new building in the Middle Terrace development zone of the Marine Science Campus and shall be completed prior to occupancy and/or use of the development, or this improvement shall be completed when the first 10 percent of new building floor area (square footage) contained in the Marine Science Campus Building Program set forth in Subsection 5.2.1 is completed and prior to occupancy and/or use of the development that caused the 10% threshold to be reached, whichever comes first.

9.3.3 *Shaffer Road/Delaware Avenue Intersection Improvements*

The University shall make improvements to the intersection of Shaffer Road and Delaware Avenue consistent with the parameters for such improvements specified in this CLRDP, including Sections 5.5, 5.6, and Chapter 6. These intersection improvements shall be coordinated with the City of Santa Cruz and shall be constructed at the same time as the construction of the realigned main campus street for the Marine Science Campus per Subsection 9.3.2 above.

9.4 Drainage System Improvements

This section sets forth the implementation schedule for specified stormwater system improvements on the Marine Science Campus consistent with this CLRDP. The University shall enhance the Marine Science Campus drainage system consistent with the parameters for such drainage improvements specified in this CLRDP, including Section 5.7 and the Drainage Concept Plan (Appendix B). Specified drainage improvements shall be completed as shown in Figure 9.5.

Fig. 9.5 Timing of Drainage System Improvements

Specified Improvements	*Timing of Improvement*
Repair/replace the 24-inch drainage pipe from wetland W4 to the De Anza Mobile Home Park.	All specified drainage system improvements shall be undertaken ~~and completed~~ concurrent with ~~the first 10 percent of~~ any new development in the Middle Terrace development zone of the Marine Science Campus and shall be completed prior to occupancy and/or use of the development.
Restore the degraded grassy swale located on the east side of McAllister Way between the Lower Terrace development zone and the outlet to Younger Lagoon opposite the NOAA Fisheries facility.	
Clean-out or replace the 18-inch pipe west of the NOAA Fisheries facility under McAllister Way.	
Repair and/or replace the stormwater outfall directing discharge toward Younger Lagoon Reserve west of the NOAA Fisheries facility.	
Repair or replace the percolation trench and berm directing Middle Terrace development zone discharge toward Younger Lagoon Reserve.	

Note: what follows are suggested modifications to the non-text figures of Chapter 9:

1. All Figures: All changes to figures identified in previous chapters that also affect figures in this chapter need to be changed.
2. Figure 9.1:
    a. Modify Figure 9.1 to show the access path to the beach from the ocean overlook (i.e., from Overlook B), label it as PT15 and "Public Trail."
    b. Legend reference to "new public trail segment" is inaccurate b/c not all are new, and could lead to internal confusion since it doesn't match text in section 5.6 or figure 5.5. Fix; change legend to refer to these as "Public Trails" to match text and figure 5.5.
    c. Add public trail loop connection between bend in realigned road (nearest the intersection of Shaffer Road and Delaware Avenue) and the north-south public trail segment just north of CDFG (i.e., extending to where road will be abandoned), and label trail loop it as part of PT 3.
    d. Note that 9.1 and 5.5 need to be meshed. In other words, changes to 9.1 need to be applied to figure 5.5, and vis versa (i.e., similar changes to both).
    e. Title is misleading because it doesn't show all access and recreational elements, just trails and overlooks. Change title to "Public Trail and Overlook Improvements."
    f. Add overlook F near shoreline next to De Anza at promontory.

Note: This Resource Management Plan was originally prepared for UCSC by John Gilchrist & Associates.

Note: all footers need to be revised to match the format of the CLRDP chapters, with the numbering based on an A-1, A-2, A-3 system.

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~~[[Note: when the RMP was written, the YLR management plan was referenced as part of the CLRDP. As a result, the RMP did not include a YLR specific section. Now that the YLR mgmt plan is NOT a part of this, it may be in University and/or NRS best interests to insert a section relevant to YLR. Could be adapted from the current management plan update and/or excerpted otherwise. Maggie Fusari should be consulted regarding this basic question. If it were to be inserted, it would need to be otherwise consistent with the remainder of the CLRDP as modified.]]~~

Note: all footers need to be revised to match the format of the CLRDP chapters, with the numbering based on an A-1, A-2, A-3 system.

Note: all footers need to be revised to match the format of the CLRDP chapters, with the numbering based on an A-1, A-2, A-3 system.

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EXECUTIVE SUMMARY

This Resource Management Plan augments the natural resource related provisions, including the policies and implementation measures, of the CLRDP, providing specificity and detailed guidance for protecting, maintaining, and, as feasible, enhancing the natural resources of the non-developed areas as well as avoiding impacts to Younger Lagoon Reserve. The plan describes the physical and biological characteristics of the terrace portion of the campus, including the upland habitats as well as the permanent and seasonal wetland areas. It outlines overall goals for resource management, and details specific goals for each defined vegetation type or wetland area. Measures for protection, management, and enhancement of biological resources, including long-term maintenance and monitoring, are outlined. Performance criteria and implementation schedules are also provided.

INTRODUCTION

1. Marine Science Campus Location

Note: all footers need to be revised to match the format of the CLRDP chapters, with the numbering based on an A-1, A-2, A-3 system.

This Resource Management Plan (RMP) applies to the Marine Science Campus (Campus) of the University of California, Santa Cruz (UCSC). The site is located on the coast at the western edge of the City of Santa Cruz (Figure A-1). It encompasses the laboratory complex known as Joseph M. Long Marine Laboratory (LML), a flat, gently southward-sloping coastal terrace that ends at a bluff approximately 35 feet above the waters of the Monterey Bay National Marine Sanctuary, and the University of California's Younger Lagoon Reserve (YLR). The site is located within the coastal zone of the City of Santa Cruz.

The Campus is bordered by a variety of land uses. Agricultural land lies to the west of the site, along the western boundary of YLR. The northern boundary of the campus is formed by the Union Pacific Railroad tracks, beyond which is an industrial area. Shaffer Road runs along the eastern boundary of the site north of Delaware Avenue. East of Shaffer Road is undeveloped land that is currently vacant except for a community garden. Antonelli Pond lies to the east of this area. South of Delaware Avenue, the campus is bounded on the east by the De Anza Mobile Home Park. The Pacific Ocean forms the site's southern boundary. The primary access to the site is provided by at the intersection of Delaware Avenue and Shaffer Road via an east-west paved roadway (sometimes referred to as Delaware Avenue Extension), which becomes McAllister Way as it extends north-south on the site.

2. Resource Management Plan Summary

The Campus brings together the original LML site (15.70 acres), the upland terrace site (57.23 acres), and YLR (25.03 acres) to form a combined site totaling 97.96 acres (see Figure A-2). NOAA has a 2.5-acre federal in-holding on the property that is occupied by NOAA Fisheries Laboratory and that is not covered by this plan. The University of California is the agency responsible for Campus planning and development as well as long-term management.

The RMP sets forth parameters for protection, restoration, enhancement, and management of the natural resource and open space areas of the Campus, except for YLR. These areas are those not proposed for building and similar development under the CLRDP, but rather are proposed for long-term fostering of resource value.

As stated in this CLRDP, development of the Marine Science Campus is planned to protect and enhance the natural resources of the site and to maximize the amount of naturalistic landscape and open space through the clustering of buildings within defined development area. Development will be centered in three nodes of clustered activities, separated by natural resource and open space areas. YLR, seasonal wetlands, and associated buffers will be permanently protected. Upland areas will be managed to increase the abundance and diversity of native plant species and to promote the movement of wildlife between Younger Lagoon and the Moore Creek drainage (including Antonelli Pond). As part of the CLRDP Drainage Concept Plan, new vegetated wet ponds, drainage swales, and filter strips will be created and landscaped with native plant species compatible with surrounding habitats and capable of biologic filtration. Improved landscaped and open space areas will be provided, with transitional landscaping providing a buffer between developed and natural areas.

The RMP focuses on the management of areas identified in the CLRDP as natural resource areas, buffers, naturalistic open space areas, and habitat for the site's special-status species. This includes areas designated Resource Protection, Resource Protection Buffer, Wildlife Corridor, and Open Space. The RMP does not explicitly cover drainage areas for stormwater management or landscaped areas within development zones; these are addressed separately in the CLRDP. Natural resource areas to be managed include special-status species habitats, seasonal wetland areas on the terrace, terrace scrub areas, wildlife

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corridors, the intertidal area below the bluff, and associated buffers.

The RMP is primarily intended as a guide to the management of the site rather than an explicit implementation document for specific projects per se. Its main purpose is to provide overall management goals and guidelines, which can then be used to develop specific proposals for implementing RMP recommendations and requirements through individual projects (e.g., project specific planting plans, restoration plans, etc.). Of course, it is possible that the RMP itself may become the implementation vehicle for a series of management measures and/or projects approved at one time (see also Implementation section of this RMP below). In such a case, the more general parameters of the RMP would need to be elaborated on and made more explicit in the same manner as would be necessary for implementing individual projects; this refinement simply being on a larger scale when looking at the RMP as a whole. In regards to RMP performance standards specifically, the intent of this RMP is that the performance standards be made more specific and detailed at the time of further plan development and project approval. It is possible and expected that such elaborated performance standards will differ from RMP performance standards to the extent necessary to be consistent with professional restoration/revegetation standards, and to provide for the best possible resource outcome.

In any case, for each of the natural resource areas covered, the RMP describes the physical and biological characteristics, management goals, management measures, and performance standards to be achieved. The RMP also identifies parameters for long-term maintenance and monitoring, and an implementation schedule.

3. Overview of Marine Science Campus Site

The Campus encompasses existing and planned laboratory facilities, the terrace, and YLR (Figure A-2). At the time of CLRDP certification, the existing marine laboratory facilities included the original Long Marine Laboratory (LML), which comprises a seawater intake and storage system as well as laboratory buildings, outdoor work and research areas, and holding tanks located on the bluff. The Seymour Marine Discovery Center is situated on the bluff adjacent to the original LML site. A small area of native coastal bluff vegetation has been planted next to the Center. Farther inland to the west of McAllister Way are the Marine Wildlife Center operated by the California Department of Fish and Game (CDFG), the Avian Facility operated by the UCSC Predatory Bird Research Group, and greenhouses, some of which are leased for commercial operations. Inland and to the east of McAllister Way is the NOAA federal in-holding that includes a laboratory building and parking area.

Future marine laboratory facilities planned under the CLRDP include research buildings, conference and workshop facilities, equipment storage and maintenance facilities, and housing. These facilities will be clustered in three development nodes on the terrace (Figure A-3).

The upland terrace stretches from the coastal bluff area northward to the Union Pacific Railroad tracks at the site's northern boundary. The majority of the site was used for agriculture and produced brussels sprouts until 1987, since which time it has lain fallow. As described more fully below, the coastal bluff and terrace support a mix of native and non-native vegetation, most of which is characterized as non-native grassland and coyote brush scrub-grassland. Seasonal freshwater wetlands and wetland buffers are also on the terrace. A narrow intertidal rock shelf exists at the base of the bluff.

YLR is a protected natural reserve, managed for research and other educational activities. It lies along the western edge of the site and includes the lagoon itself as well as portions of tributary drainages and immediately adjacent upland habitats. The Reserve supports several different vegetation types and diverse wildlife.

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The terrace and YLR contain known or potential ~~non-productive~~ habitat for several special-status wildlife species, as described more fully below. No special-status plant species have been found to occur on the Campus.

Several areas on the Campus also meet the definition of environmentally sensitive habitat area (ESHA) under the California Coastal Act. An ESHA is defined as any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments. At the time of CLRDP certification, ~~all~~ portions of YLR qualified as ESHA, as did seasonal wetlands on the terrace and the rocky intertidal zone.

4. Overall Resource Management Goals

The overall management goal for the RMP is to support the CLRDP goals for the Campus while also protecting, maintaining, and, as feasible, enhancing the natural resources of the non-developed areas as well as avoiding impacts to YLR. This philosophy is reflected in the planning of the Campus itself, which is based on maximizing the amount of naturalistic landscape and open space through clustering of buildings; maximizing views from the site to the ocean, the coastal hills, to the agricultural lands to the north and, where appropriate, to adjacent natural features such as YLR and the coastal bluffs; optimizing views of the site when viewed from external locations; and the overall goal to protect and enhance the natural resources of the site.

In addition, the RMP shares two basic goals with the California Coastal Act: (1) to "protect, maintain, and where feasible, enhance and restore the overall quality of the coastal zone environment and its natural and artificial resources," and (2) to "maximize public access to and along the coast and maximize public recreational opportunities in the coastal zone consistent with sound resources conservation principles and constitutionally protected rights of private property owners" (Public Resources Code Section 30001.5) For the CLRDP, this latter goal is adapted to meet the specific needs of the site, such that maximum public access will be provided but will be managed to ensure that the research and marine facilities of the site remain secure, and that the natural environment and its wildlife populations are not significantly disturbed.

RESOURCE MANAGEMENT ON THE TERRACE

1. Resource Management for Overall Terrace Resources

A. Physical Description of Terrace

The terrace and bluff of the Campus are part of the lowest and southernmost of a series of marine terraces along the Santa Cruz coastline. The terrace is essentially flat, with a 1-2% slope to the south. Its elevation ranges from 51 feet above sea level at the northern edge to 37 feet above sea level at the bluff top, its southern boundary. The southwestern edge of the terrace, between the original LML and YLR, is partially edged by an artificial berm approximately 10 to 12 feet high and 40 to 50 feet wide.

The site is subject to a Mediterranean climate, with wet, cool winters and dry, warm summers with little rainfall. This pattern helps to account for the mostly seasonal nature of the site's wetlands.

Note: all footers need to be revised to match the format of the CLRDP chapters, with the numbering based on an A-1, A-2, A-3 system.

Summer fog is typical on 30% to 40% of the days. Prevailing winds are from the northwest in the summer; winter storm winds are generally from the south. Total rainfall averages approximately 30 inches per year. The site is exposed and subject to relatively higher wind velocities, coastal fog, and salt spray than more protected areas of the City to the east.

Soils on the terrace tend to exhibit generally poor drainage, with portions of the site experiencing saturated soil conditions and temporary shallow inundation during the wet season (November through March). Soils fall into three soil series, Elkhorn Sandy Loam, 0-2% slope; Elkhorn Sandy Loam, 2-9% slope; and Watsonville Loam, thick surface, 0-2% slope (SCS 1980). These soils tend to be deep with slow runoff and loamy textures, having developed on alluvial fans and marine terraces from old alluvium and marine deposits. The 0-2% slope soils are on the Natural Resource Conservation Service hydric soils list for Santa Cruz County (NRCS 1992) but field observations do not support this designation for most of the property (Huffman Broadway Group (HBG) 2004). The soils are underlain by Santa Cruz Mudstone, with the water table generally 2 to 10 feet below the surface depending on time of year (Philip Williams and Associates 1995).

Water primarily enters the property from a culvert at the railroad tracks near the northwest corner of the site, through on-site precipitation, and by site runoff (HBG 2004). Water leaves the site through evaporation and evapotranspiration, as well as drainage to Younger Lagoon, De Anza Mobile Home Park, and the ocean. Natural drainage patterns have been altered by LML and related Campus development as well as ditches and surface reconveyance from past farming activities. Subsurface seeps on the coastal bluff and YLR slopes also indicate near surface perched groundwater exits the site at these locations.

Extensive burrowing activity by rodents is evident throughout the terrace and may have loosened the upper portions of the soil profile and aerated the soils. This may be improving soil drainage characteristics and increasing vertical and horizontal water movement through the site (HBG 2004)

B. Biological Resources on the Terrace

The terrace supports a number of vegetation types, in both wetland and upland habitats, which in turn support a variety of resident and non-resident wildlife. Wetland areas (Figure A-4) have been identified and mapped separately from the wetland vegetation types. Wetland areas do not necessarily correspond with discrete vegetation types because some species, such as Italian ryegrass, occur in both wetlands and uplands.

Habitat for sensitive species represents another resource that addresses the specific requirements of sensitive species, and also overlaps with wetland areas.

Areas of particular concern for ongoing resource management under the CLRDP include the seasonal wetlands, the movement of wildlife across the site, and sensitive species habitat. With one exception (Wetland W7), the seasonal wetlands qualify as ESHAs. In addition, two vegetation types within the wetlands ("freshwater marsh" and "coastal terrace and seasonal pond") are also California Natural Diversity Database (CNDDB) "high priority" habitats for protection (Holland 1986, CDFG 2000).

The information provided below comes from three main sources. EcoSystems West prepared an assessment of then existing biological conditions on the site to support the preparation of the CLRDP and its EIR. They compiled information from biotic surveys conducted over 10 years and conducted field surveys in 2000 and 2001 for plants, amphibians, reptiles, birds, fish, and invertebrates. An extensive investigation of wetland habitats on the terrace was performed by the Huffman-Broadway Group (HBG 2004). John Gilchrist & Associates (JGA) and The Habitat Restoration Group (HRG) performed a variety

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of studies in review of previous development proposals at the site (JGA and EH 1998; HRG 1994; HRG 1993). An overview of the results of these studies is provided here. Numerous previous studies were also reviewed (see References).

Vegetation

The different vegetation types on the terrace reflect differences in drainage patterns, environmental stresses (such as exposure to salt spray and ocean winds), and historical use (Figure A-5). These include five wetland vegetation types (seasonal pond, freshwater marsh-coastal terrace, herb community dominated by willow-herb and Douglas baccharis, moist meadow, and central coast arroyo willow riparian forest), non-native grassland, coyote brush scrub-grassland, coastal bluff community, ruderal, and planted berm habitats. Non-native grassland and coyote brush scrub-grassland occupy most of site. The vegetation types are described more fully below under protection and enhancement of specific habitats.

A total of 101 species of vascular plants have been identified from the site (see EcoSystems West 2002). Of these 101 species, 37 are native or believed to be native (some may be escapes from adjacent native plantings), 62 are non-native. Bush lupine (*Lupinus arboreus*) is native to the region but it is not known whether it is native to the site; *Conyza* sp. could be identified only to genus and could be either a native or non-native species.

The terrace has been surveyed for special-status plant and animal species many times over the years (EcoSystems West 2002; JGA and EH 1998; Habitat Restoration Group 1993, 1994). The studies have included the identification of target species and both focused and comprehensive field surveys. No special-status plant species have been found on the terrace property. This is likely a consequence of the site's past farming activities, which occurred over the majority of the property.

Wildlife

Wildlife on the terrace site includes a variety of species, ranging from amphibians and reptiles to small and large mammals and birds. Information comes from a variety of sources and includes both known sightings and expected occurrences (EcoSystems West 2002, JGA and EH 1998). The studies included the identification of target sensitive wildlife species. Sensitive wildlife species are described briefly here in the general discussion of wildlife and in more detail later in this plan under the discussion of protection of special-status wildlife species.

Several amphibian and reptile species have been observed or are expected to occur. Amphibian species on the terrace include Pacific tree frog (*Pseudacris regilla*) adults and tadpoles that have been sighted in the wetland areas. Three sub-adult California red-legged frogs (CLRLF) (*Rana aurora draytonii*), a species listed as threatened under the federal Endangered Species Act and a California species of concern, were sighted in 1997 in the seasonal wetland at the northern boundary of the property adjacent to the railroad tracks (Mori 1997) (Figure A-5). Previous surveys before 1997 did not detect red-legged frogs on the site. In 2002 a single CRLF was observed in the same wetland. CLRLF may use this wetland occasionally as non-reproductive habitat, especially during the wet season (Mori 1997; Ecosystems West in prep). The western toad (*Bufo boreas*) may also occur here as well as California slender salamanders (*Batrachoseps attenuatus*). Reptiles expected or known to occur include the alligator lizard (*Elgaria* sp.), western fence lizard (*Sceloporus occidentalis*), gopher snake (*Pituophis melanoleucus*), and garter snake (*Thamnophis* spp.).

The terrace habitats support populations of small rodents as well as larger mammals. Observations have been made of California meadow voles (*Microtus californicus*) and Botta's pocket gopher (*Thomomys*

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bottae); the site likely supports deer mouse (*Peromyscus* sp.) also. The rodents are a prey base for larger predatory species such as coyote (*Canis latrans)* and bobcat (*Lynx rufus*). Mountain lion (*Felis concolor*), gray fox (*Urocyon cinereoargenteus*), longtail weasel (*Mustela frenata),* raccoon (*Procyon lotor*), striped skunk (*Mephitis mephitis*), and the non-native red fox (*Vulpes vulpes*) occur in YLR and may migrate through the terrace portion of the site.

With its variety of habitats, the terrace supports a number of bird species. Raptors have been observed foraging at the site. Species sighted include the white-tailed kite (*Elanus caeruleus*) (CDFG Fully Protected species, federal protected species), American kestrel (*Falco sparverius*), barn owl (*Tyto alba*), northern harrier hawk (*Circus cyaneus*) (CDFG Species of Special Concern), merlin (*Falco columbarius*) (CDFG Species of Special Concern), and peregrine falcon (*Falco peregrinus*) (California endangered species, federal protected species). Burrowing owls *(Athene cunicularia*) (CDFG Species of Special Concern, federal Species of Concern species and protected species) have been observed and may have formerly nested on site (Pele 1995).

Non-raptor bird species have been seen foraging on seeds or insects, including the mourning dove (*Zenaida macroura*), rufous-sided towhee (*Pipilo erythropthalmus*), black-headed phoebe (*Sayornis nigricans*), California towhee (*Pipilo crissalis*), American robin (*Turdus migratorius*), California quail (*Callipepla californica*), white-crowned sparrow (*Zonotrichia leucophyrys*), Anna's hummingbird (*Calypte anna*), barn swallow (*Hirundo rustica*), tree swallow (*Tachycineta bicolor*), Steller's jay (*Cyanocitta stelleri*), American crow (*Corvus corax*), and purple finch (*Carpodacus purpureus*). Tricolored blackbird (*Agelaius tricolor*) (CDFG Species of Special Concern, federal Species of Concern and protected species), loggerhead shrike (*Lanius ludovicianus*) (CDFG Species of Special Concern, federal Species of Concern and protected species), and black swift (*Cypseloides niger*) (CDFG Species of Special Concern, federal protected species) have also been observed. A number of waterfowl use the seasonal pond.

The CLRDP designates the northern margin of the terrace as a wildlife corridor for wildlife moving between Antonelli Pond/Moore Creek and YLR, as well as laterally along the railroad tracks to the west. A second corridor is designated on the southern edge of the Upper Terrace development zone (connecting through Wetland W3). These ~~proposed~~ wildlife corridors are discussed in more detail below.

Non-native animals observed on the site include the red fox and domestic animals, both dogs and cats (Fusari 2001a, 2002). These animals pose a serious threat to native wildlife. Roaming domestic cats are especially dangerous for ground-nesting birds such as northern harrier.

C. Overall Resource Management Goals for the Terrace

The resource management goals for the terrace habitats are described below. They are consistent with the overall goals for the Campus, and encompass maintenance and enhancement of open space habitats, protection and enhancement of sensitive biotic elements, controlled public access, and long-term maintenance and monitoring. Management measures, performance standards, and a general implementation schedule to attain these goals are presented in the following sections.

RMP Goal 1. Maintain open space areas; protect and enhance the grassland, ruderal, and coyote brush scrub-grassland areas through eliminating highly invasive weeds, controlling lower priority weeds, promoting the abundance and diversity of native plant species through small-scale plantings, and preventing unauthorized trail development.

RMP Goal 2. Protect and enhance the coastal bluff areas through eliminating highly invasive weeds,

Note: all footers need to be revised to match the format of the CLRDP chapters, with the numbering based on an A-1, A-2, A-3 system.

promoting the abundance and diversity of native plant species through small-scale plantings, preventing unauthorized trail development, and increasing the extent of coastal bluff vegetation.

RMP Goal 3. Protect and enhance wetlands by improving surface water flow, controlling weeds, promoting the abundance and diversity of native plant species through small-scale plantings, creating buffers, implementing the CLRDP Drainage Concept Plan, and controlling access by humans and non-native animals.

RMP Goal 4. Protect and enhance the wildlife corridor and wildlife corridor buffer areas by appropriately siting and designing development adjacent to them (and trails that may be adjacent and/or that may pass through them), eliminating highly invasive weeds, planting native species to provide better protective cover and visual screening for wildlife than existing vegetation, maintaining existing surface drainage patterns, controlling access by humans and non-native animals and providing a safe crossing for wildlife if Shaffer Road is improved.

RMP Goal 5. Protect wetlands from adverse impacts due to weeds, noise, human and non-native animal intrusion, lighting, predation, and sedimentation.

RMP Goal 6. Protect YLR from adverse impacts associated with terrace use by enhancing the YLR buffer area (including the berm in the lower portion of the terrace) through enhanced fencing and vegetative screening to block terrace noise, lights, and activities from YLR, controlling highly invasive weeds, and replanting with native species.

RMP Goal 7. Protect terrace water quality and habitats, and prevent erosion, by implementing the Drainage Concept Plan and actively addressing any erosion that occurs.

RMP Goal 8. Protect special-status wildlife species through protection and enhancement of wetland habitats (for CRLF) and grassland/scrub-grassland habitats (for special-status bird species), and through protection from non-native predators.

RMP Goal 9. Develop long-term maintenance and monitoring programs for the terrace habitats.

2. Resource Management Measures for Specific Terrace Resources

Management measures to protect and enhance the terrace habitats and species emphasize naturalistic elements to provide protection and gradual vegetation changes to maintain habitat while altering species composition. Development siting and design, as well as protective berms, fencing/barriers, and landscaping with native species are all used to shield sensitive wildlife areas and guide human use away from sensitive habitats. Where appropriate, fencing and signing will also be used to restrict access to sensitive habitat areas. Vegetation changes will be effected by control of invasive weeds and shifting species composition to native species through small-scale plantings. Specific management measures for terrace habitats are described below. Guidelines for how these measures will be implemented are provided at the end of this section.

A. Grassland, Ruderal, and Coyote Brush Scrub-Grassland Habitats

Description

Note: all footers need to be revised to match the format of the CLRDP chapters, with the CLRDP based on an A-1, A-2, A-3 system.

Non-native Grassland

Non-native grassland is one of two dominant vegetation types on the terrace, occupying most of the site along with coyote brush scrub-grassland (Figure A-5). It developed after farming stopped in 1987 and is now composed almost entirely of weedy non-native and mostly annual species. The dominant species are all non-native and mostly annual grasses, including ripgut grass (*Bromus diandrus*), soft chess (*Bromus hordeaceus*), six-weeks fescue (*Vulpia bromoides*), slender wild oat (*Avena barbata*), hare barley (*Hordeum murinum* ssp. *leporinum*), and Italian ryegrass (*Lolium multiflorum*). Herbs include wild radish (*Raphanus sativus)*, cut-leaved geranium (*Geranium dissectum*), bristly ox-tongue (*Picris echioides*), and Bermuda-buttercup (*Oxalis pes-caprae*). The abundance of Bermuda-buttercup, which reproduces by vegetative bulblets, likely results from past cultivation and tilling activities.

Patches of coyote brush (*Baccharis pilularis*) are widely scattered through the grassland at relatively low densities (lower than in areas designated as coyote brush scrub-grassland). Dense, widely scattered patches of Douglas' baccharis (*Baccharis douglasii)* are also scattered over much of the grassland, especially in the southern half of the site. As discussed in detail in the wetland investigation (HBG 2004), the presence of this wetland species in the upland grassland habitat is ecologically anomalous and may be due to several factors, including historical disturbance and changes in drainage patterns. If left undisturbed, upland portions of this grassland would probably succeed toward a coyote brush scrub community.

Ruderal

The ruderal designation includes an area that supports a linear underground utility corridor (Figure A-5). All vegetation was removed during construction and the area is now colonized by a dense cover of the weedy, non-native herb bur-clover (*Medicago polymorpha*). Other species include non-native weeds such as white-stemmed filaree (*Erodium moschatum*), Cretan lavatera (*Lavatera cretica*), pampas grass (*Cortaderia jubata*), poison hemlock (*Conium maculatum)*, and annual grasses.

Coyote Brush Scrub-Grassland

As described above, coyote brush scrub-grassland occupies most of the site along with non-native grassland (Figure A-5). It is characterized by abundant clumps of coyote brush of various sizes interspersed with open grassland areas. It is similar in composition to the non-native grassland and also includes scattered patches of Douglas' baccharis. Many coyote brush individuals are very tall, reaching 10 feet or more. Bermuda-buttercup is generally abundant under the coyote brush.

Protection and Enhancement Management Measures for Grassland, Ruderal, and Coyote Brush Scrub-Grassland Habitats

Management of the non-native grassland, ruderal, and coyote brush scrub-grassland habitats will be combined as all habitats are essentially different stages of ruderal succession on the terrace and have similar management requirements. The emphasis will be on maintenance and enhancement of grassland and coyote brush scrub-grassland habitat types (Figure A-6). Management will focus on shifting plant species composition to native species to approach a native coastal terrace prairie type of grassland community. Coastal terrace prairie floristic composition is variable, with native perennial grasses dominant but exotic annual species still abundant (Hamilton 1997, Heady *et al.* 1977). Therefore performance standards for these habitat types will provide for continued presence of annual grassland species but strive towards natives as much as possible. Performance standards for these management

Note: all footers need to be revised to match the format of the CLRDP chapters, with the numbering based on an A-1, A-2, A-3 system.

measures are shown in Table A-1. Non-native weeds are identified in Table A-2, and are classified there as high, medium, and low priority for removal. Table A-3 identifies appropriate species for the planting described in these management measures.

RMP MM 1. Remove high priority weeds (see Table 2) using appropriate methods. Weeds should be removed prior to seedset.

RMP MM 2. Control other weedy invasive annual grasses and herbs (medium and low priority for removal; see Table 2) by mowing at least three times through spring and summer. Mowing should be timed to prevent annual species seedset. Mowing should be performed with a rotary or sickle bar mower so that it does not damage native herbaceous groundcovers; flail mowers should not be used. The timing of cutting is critical and should occur when the majority of weeds are in the early to mid-flowering stage; subsequent cuttings will be necessary for weeds that re-flower. Initial mowing for weed control should be performed as early as possible in March prior to bird nesting and territory establishment. Allow patches of Douglas' baccharis and existing native shrubs to remain but mow recruiting coyote brush as a means of confining coyote brush to existing locations and maintaining grassland habitat.

RMP MM 3. Plant native perennial grasses and low-growing herbaceous species (see Table A-3) that are capable of tolerating regular mowing activity and have low nutrient and water requirements. In addition to planting native perennial grasses and low-growing herbaceous species throughout the Grassland et al area, supplemental container plantings and/or seeding shall also be done in planted "islands" interspersed throughout the Grassland in order to create seed sources of desirable species in less densely vegetated areas of the existing ruderal/grassland habitats. Such island areas shall measure at least 500 square feet and shall be distributed throughout the habitat; total area of supplemental islands planted over the initial 20-year period shall be at least 10,000 square feet. Areas disturbed for construction of underground utilities, etc. should be planted as soon as possible prior to the next rainy season.

RMP MM 4. Adjacent to trails or in other areas subject to disturbance, protect areas undergoing planting until vegetation is established. As appropriate, place low fencing and signs informing people of ongoing revegetation efforts around the planted areas.

[[Note: Figure A-6 that follows needs to be moved to the section following overall goals and preceding individual habitat area prescriptions for clarity.]]

B. Coastal Bluffs

Description

The coastal bluff vegetation occurs in two phases, mixed phase and ice plant phase, in a narrow zone along the top of bluff at the terrace's southern end (Figure A-5). Its width varies from 10 to 40 feet from the edge of the bluff. It is exposed to salt spray and ocean winds.

The mixed phase is south of the main LML buildings. It includes scattered prostrate or small coyote brush shrubs but is dominated by a mixture of native and non-native grasses and herbs. The perennial grass creeping wild rye (*Leymus triticoides*) is the most abundant native species; other natives include the herbaceous perennials lizard tail (*Eriophyllum staechadifolium*), coast buckwheat (*Eriogonum latifolium*), seaside daisy (*Erigeron glaucus*), yarrow (*Achillea millefolium*) and sea lettuce (*Dudleya caespitosa*). The history of these species is unclear; they may be indigenous to the site or may have established from

Note: all footers need to be revised to match the format of the CLRDP chapters, with the numbering based on an A-1, A-2, A-3 system.

native plant garden seed dispersal. The non-native wild radish, Bermuda-buttercup, Cretan lavatera, and ripgut grass are abundant also.

[[Note: Tables A-1, A-2, and A-3 need to be moved to precede coastal bluff discussion, or they need to be moved to the end of the document so as to not cut-up the resource analysis herein]]

Table A-1. Performance Standards for Grassland, Ruderal, and Coyote Brush Scrub-Grassland Habitats.

RMP Goal 1: Maintain open space areas; protect and enhance the grassland, ruderal, and coyote brush scrub-grassland areas through eliminating highly invasive weeds, controlling lower priority weeds, promoting the abundance and diversity of native plant species through small-scale plantings, and preventing unauthorized trail development.				
FEATURE	**PERFORMANCE STANDARD**	**TIME PERIOD***	**FINDINGS**	**ACTION**
RMP PS 1. Priority 1 weeds	Eliminate on terrace	Year 3 and annually thereafter	No priority 1 weeds surviving to reproduction	Continue weed monitoring and control
			Priority 1 weeds reproducing on site	Increase frequency of monitoring and weed control; consider alternative control methods
RMP PS 2. Priority 2 and 3 weeds	Reduce weedy annual grassland seedset	Year 1 and annually thereafter	Annual grassland cut before developing seed	Continue mowing program
			Annual grassland allowed to develop seed	Change mowing schedule
RMP PS 3. Native plant species diversity in supplemental (island) planted areas	8 native plant species appropriate for habitat established in planted areas (islands) to comprise 40% cover within planted areas	2 years after planting**	6 or more native plant species established comprising $\geq$ 20% cover within planted areas; and evidence of natural recruitment present	Continue monitoring

Note: all footers need to be revised to match the format of the CLRDP chapters, with the numbering based on an A-1, A-2, A-3 system.

Table A-1. Performance Standards for Grassland, Ruderal, and Coyote Brush Scrub-Grassland Habitats.

RMP Goal 1: Maintain open space areas; protect and enhance the grassland, ruderal, and coyote brush scrub-grassland areas through eliminating highly invasive weeds, controlling lower priority weeds, promoting the abundance and diversity of native plant species through small-scale plantings, and preventing unauthorized trail development.

FEATURE	PERFORMANCE STANDARD	TIME PERIOD*	FINDINGS	ACTION
			Fewer than 6 native plant species or < 20% cover of native species in planted areas or no evidence of natural recruitment present	Perform supplemental planting using different species, propagule type, and/or soil preparation methods
		5 years after planting**	6 or more native plant species established comprising ≥ 40% cover within planted areas; and evidence of natural recruitment present	Continue monitoring
			Fewer than 6 native plant species or < 40% cover of native species in planted areas or no evidence of natural recruitment present	Perform supplemental planting using different species, propagule type, and/or soil preparation methods
		10 years after planting** and every 5 years thereafter	8 or more native plant species established comprising ≥ 40% cover within planted areas; and evidence of natural recruitment present	Continue monitoring

Note: all footers need to be revised to match the format of the CLRDP chapters, with the numbering based on an A-1, A-2, A-3 system.

Table A-1. Performance Standards for Grassland, Ruderal, and Coyote Brush Scrub-Grassland Habitats.

RMP Goal 1: Maintain open space areas; protect and enhance the grassland, ruderal, and coyote brush scrub-grassland areas through eliminating highly invasive weeds, controlling lower priority weeds, promoting the abundance and diversity of native plant species through small-scale plantings, and preventing unauthorized trail development.

FEATURE	PERFORMANCE STANDARD	TIME PERIOD*	FINDINGS	ACTION
			Fewer than 8 native plant species or < 40% cover of native species in planted areas or no evidence of natural recruitment present	Perform supplemental planting using different species, propagule type, and/or soil preparation methods
RMP PS 4. Native plant species diversity overall (i.e., the entire area except for the ~~adjacent to~~ planted "islands")~~areas~~	4 native plant species appropriate for habitat established ~~in zone extending 60 ft beyond planted areas~~	~~10~~ 2 years after planting**	4 or more native plant species established, and at least 10% native cover overall, and evidence of natural recruitment present ~~in zone extending 20 ft beyond planted areas~~	Continue monitoring
			Fewer than 4 native plant species established or less than 10% native cover overall or no evidence of natural recruitment present ~~in adjacent zone~~	Perform supplemental planting using different species, propagule type, and/or soil preparation methods

Note: all footers need to be revised to match the format of the CLRDP chapters, with the numbering based on an A-1, A-2, A-3 system.

Table A-1. Performance Standards for Grassland, Ruderal, and Coyote Brush Scrub-Grassland Habitats.

RMP Goal 1: Maintain open space areas; protect and enhance the grassland, ruderal, and coyote brush scrub-grassland areas through eliminating highly invasive weeds, controlling lower priority weeds, promoting the abundance and diversity of native plant species through small-scale plantings, and preventing unauthorized trail development.				
FEATURE	**PERFORMANCE STANDARD**	**TIME PERIOD***	**FINDINGS**	**ACTION**
		~~15~~ 5 years after planting**	4 or more native plant species established, and at least 25% native cover overall, and evidence of natural recruitment present ~~in zone extending 40 ft beyond planted areas~~	Continue monitoring
			Fewer than 4 native plant species established or less than 25% native cover overall or no evidence of natural recruitment present ~~in adjacent zone~~	Perform supplemental planting using different species, propagule type, and/or soil preparation methods
		~~20~~ 10 years after planting** and every 5 years thereafter	4 or more native plant species established, and at least 40% native cover overall, and evidence of natural recruitment present ~~in zone extending 60 ft beyond planted areas~~	Continue monitoring ~~Revegetation successful~~

Note: all footers need to be revised to match the format of the CLRDP chapters, with the numbering based on an A-1, A-2, A-3 system.

Table A-1. Performance Standards for Grassland, Ruderal, and Coyote Brush Scrub-Grassland Habitats.

RMP Goal 1: Maintain open space areas; protect and enhance the grassland, ruderal, and coyote brush scrub-grassland areas through eliminating highly invasive weeds, controlling lower priority weeds, promoting the abundance and diversity of native plant species through small-scale plantings, and preventing unauthorized trail development.				
FEATURE	**PERFORMANCE STANDARD**	**TIME PERIOD***	**FINDINGS**	**ACTION**
			Fewer than 4 native plant species established or less than 40% native cover overall or no evidence of natural recruitment present ~~in adjacent zone~~	Perform supplemental planting ~~in adjacent zone~~ using different species, propagule type, and/or soil preparation methods
RMP PS 5. Protection of revegetation in progress	No disturbance to revegetation plantings	Ongoing until revegetation is successful	Plantings undisturbed	Continue monitoring until revegetation is successful
			Plantings disturbed (plants broken, trampled, dislodged, removed)	Install signs or low fencing as appropriate
*Unless otherwise specified, year refers to the number of years following the date that the CLRDP is certified by the Coastal Commission. Standard must be met by year indicated. **See Table 13 for planting schedule.				

Table A-2. Known Non-native Weeds on the Marine Science Campus

Common Name	Scientific Name	Priority Rating* for Removal
Italian thistle	***Carduus pycnocephalus***	**1**
Ice plant	***Carpobrotus edulis***	**1**
Bull thistle	***Cirsium vulgare***	**1**
Poison hemlock	***Conium maculatum***	**1**
Pampas grass	***Cortaderia jubata***	**1**
Cape ivy	***Delairea odorata***	**1**
French broom	***Genista monspessulana***	**1**
Wild oat	*Avena barbata*	2
Oat	*Avena fatua*	2

Note: all footers need to be revised to match the format of the CLRDP chapters, with the numbering based on an A-1, A-2, A-3 system.

Table A-2. Known Non-native Weeds on the Marine Science Campus

Common Name	Scientific Name	Priority Rating* for Removal
Common mustard	*Brassica rapa*	2
Rescue grass	*Bromus catharticus*	2
Ripgut brome	*Bromus diandrus*	2
Soft chess	*Bromus hordeaceus*	2
Bermuda grass	*Cynodon dactylon*	2
Black mustard	*Hirschfeldia incana*	2
Velvet grass	*Holcus lanatus*	2
Farmer's foxtail	*Hordeum murinum* ssp. *leporinum*	2
Prickly lettuce	*Lactuca serriola*	2
Wild lettuce	*Lactuca virosa*	2
Italian ryegrass	*Lolium multiflorum*	2
Perennial ryegrass	*Lolium perenne*	2
Mallow	*Malva parviflora*	2
Sourgrass	*Oxalis pes-caprae*	2
Bristly ox-tongue	*Picris echioides*	2
Rabbitsfoot grass	*Polypogon monspeliensis*	2
Wild radish	*Raphanus sativus*	2
Curly dock	*Rumex crispus*	2
Prickly sow thistle	*Sonchus asper*	2
Sow thistle	*Sonchus oleraceus*	2
Scarlet pimpernel	*Anagallis arvensis*	3
Pineapple weed	*Chamomilla suaveolens*	3
Lambs quarters	*Chenopodium album*	3
Nettle-leaved goosefoot	*Chenopodium murale*	3
Brass buttons	*Cotula coronopifolia*	3
Filaree	*Erodium moschatum*	3
Cut-leaved geranium	*Geranium dissectum*	3
Rough cat's ear	*Hypochaeris radicata*	3
Loosestrife	*Lythrum hyssopifolium*	3
Bur clover	*Medicago polymorpha*	3
Cut-leaved plantain	*Plantago coronopus*	3
English plantain	*Plantago lanceolata*	3
Annual bluegrass	*Poa annua*	3

Note: all footers need to be revised to match the format of the CLRDP chapters, with the numbering based on an A-1, A-2, A-3 system.

Table A-2. Known Non-native Weeds on the Marine Science Campus

Common Name	Scientific Name	Priority Rating* for Removal
Common knotweed	*Polygonum arenastrum*	3
Sheep sorrel	*Rumux acetosella*	3
Common groundsel	*Senecio vulgaris*	3
Chickweed	*Stellaria media*	3
Rattail fescue	*Vulpia myuros*	3
Panic veldtgrass	*Ehrharta*	3

*Priority rating:

1: High priority. These weeds are capable of invading and out-competing native plants in established plant communities. They are typically perennial or biennial.

2: Medium priority. These weeds are mostly biennial or annual. They are typically less invasive and smaller in stature than priority 1 weeds.

3: Low priority. These weeds are mostly annuals that are low in stature. While many can effectively compete with native plants once they are established, they typically do not aggressively push out native plants. Most are commonly associated with native and non-native grasses and forbs in grasslands.

Source: Modified from JGA and EH 1998; L. Goodhue 2002.

Table A-3. Possible Revegetation Species.*

Common Name	Scientific Name	Grassland/ Erosion Control	Coastal Bluff	Wetland/ Riparian	~~Proposed~~ Wildlife Corridor	Upland Buffer	Coastal Scrub
Trees							
California box elder	*Acer negundo* var. *californicum*			x			
California buckeye	*Aesculus californica*				x	x	
Monterey cypress	*Cupressus macrocarpa*				x	x	
Coast live oak	*Quercus agrifolia*				x	x	
Arroyo willow	*Salix lasiolepis*			x			
Shrubs and Subshrubs							
California sagebrush	*Artemisia californica*		x		x	x	x

Note: all footers need to be revised to match the format of the CLRDP chapters, with the numbering based on an A-1, A-2, A-3 system.

Table A-3. Possible Revegetation Species.*

Common Name	Scientific Name	Grassland/ Erosion Control	Coastal Bluff	Wetland/ Riparian	~~Proposed~~ Wildlife Corridor	Upland Buffer	Coastal Scrub
Mugwort	*Artemisia douglasiana*		x	x			
Douglas' baccharis	*Baccharis douglasii*			x			
Coyote brush	*Baccharis pilularis*		x		x	x	x
Seaside daisy	*Erigeron glaucus*		x			x	
Coast buckwheat	*Eriogonum latifolium*		x			x	x
Lizardtail	*Eriophyllum staechadifolium*		x			x	x
Oceanspray	*Holodiscus discolor*				x	x	x
Deerweed	*Lotus scoparius*			x			x
Yellow bush lupine	*Lupinus arboreus*		x		x	x	
Bush monkeyflower	*Mimulus aurantiacus*		x		x	x	x
Wax myrtle	*Myrica californica*				x		x
Coffeeberry	*Rhamnus californica*				x		x
California wild rose	*Rosa californica*	x		x		x	x
California blackberry	*Rubus ursinus*			x		x	x
Red elderberry	*Sambucus racemosa* var. *racemosa*			x	x	x	x
Forbs							
Yarrow	*Achillea millefolium*		x	x		x	x
Sea pink	*Armeria maritima*		x				

Note: all footers need to be revised to match the format of the CLRDP chapters, with the numbering based on an A-1, A-2, A-3 system.

Table A-3. Possible Revegetation Species.*

Common Name	Scientific Name	Grassland/ Erosion Control	Coastal Bluff	Wetland/ Riparian	~~Proposed~~ Wildlife Corridor	Upland Buffer	Coastal Scrub
Fat hen	*Atriplex triangularis*			x			
Sun cup	*Camissonia ovata*	x					
Soap plant	*Chlorogalum pomeridianum*	x					x
Sea lettuce	*Dudleya farinosa*		x				
Cow parsnip	*Heracleum lanatum*		x			x	
Coast trefoil	*Lotus formosissimus*	x		x			
Sky lupine	*Lupinus nanus*	x	x		x	x	
Wild cucumber	*Marah fabaceus*					x	
Pacific oenanthe	*Oenanthe sarmentosa*			x			
California polypody	*Polypodium californicum*					x	x
Pacific silverweed	*Potentilla anserina* ssp. *pacifica*			x			
California buttercup, coastal form	*Ranunculus californicus*	x		x		x	
Pacific sanicle	*Sanicula crassicaulis*				x		x
California bee plant	*Scrophularia californica*			x			x
Blue-eyed grass	*Sisyrinchium bellum*	x		x			
Coast hedge nettle	*Stachys bullata*			x			
Rushes/Sedges							
Slough sedge	*Carex obnupta*			x			
Baltic rush	*Juncus balticus*			x			

Note: all footers need to be revised to match the format of the CLRDP chapters, with the numbering based on an A-1, A-2, A-3 system.

Table A-3. Possible Revegetation Species.*

Common Name	Scientific Name	Grassland/ Erosion Control	Coastal Bluff	Wetland/ Riparian	~~Proposed~~ Wildlife Corridor	Upland Buffer	Coastal Scrub
Western rush	*Juncus occidentalis*			x			
Common rush	*Juncus patens*			x			
Brown-headed rush	*Juncus phaeocephalus*			x			
Three-square	*Scirpus americanus*			x			
California tule	*Scirpus californicus*			x			
Low club rush	*Scirpus cernuus*			x			
Grasses							
Bent grass	*Agrostis pallens*	x	x	x	x	x	
California brome	*Bromus carinatus*	x		x	x	x	x
California oatgrass	*Danthonia californica*	x		x			x
Tufted hairgrass	*Deschampsia cespitosa*	x		x			
Saltgrass	*Distichlis spicata*		x				
Western ryegrass	*Elymus glaucus*				x		
Meadow barley	*Hordeum brachyantherum*			x			
Creeping wildrye	*Leymus triticoides*			x	x	x	
Foothill needlegrass	*Nassella lepida*	x			x	x	
Purple needlegrass	*Nassella pulchra*	x	x		x	x	x

* The precise species palette for specific habitats within these general areas must be determined by a qualified revegetation specialist or botanist. Except for Monterey cypress, locally collected seed, cuttings, and/or other propagules must be used for revegetation. Materials should be collected from coastal habitats located within approximately one mile of the site that are also located seaward of Highway 1 (Morgan 2002).

Source: Modified from JGA and EH (1998), Morgan (2002).

Note: all footers need to be revised to match the format of the CLRDP chapters, with the numbering based on an A-1, A-2, A-3 system.

The ice plant (*Carpobrotus edulis*) phase occurs to the east of the mixed phase, extending to the eastern boundary of site by the De Anza Mobile Home Park. It is a highly degraded, essentially ruderal assemblage overwhelmingly dominated by non-native ice plant; ripgut grass and poison hemlock are also abundant.

Protection and Enhancement Management Measures for Coastal Bluffs

The management focus here will be to protect the coastal bluffs and the areas within 100 feet of the top edge of the coastal bluffs from adjacent trail disturbance, remove highly invasive weeds, replant bare areas with native plant species, and increase the extent of the area of coastal bluff vegetation (see Coastal Bluff area identified in Figure A-6). Performance standards for these management measures are shown in Table A-4. Non-native weeds are identified in Table A-2, and classified there as high, medium, and low priority for removal. Table A-3 identifies appropriate species for the planting described in these management measures.

RMP MM 5. Remove high priority weeds (see Table A-2) using appropriate methods. Weeds should be removed prior to seedset.

RMP MM 6. Replant bare areas with appropriate native species adapted to salt spray and desiccating winds (see Table A-3). Use smaller, more prostrate and salt-adapted species closest to bluff edge (e.g., lizard tail, coast eriogonum, yarrow, seaside daisy, California sage).

RMP MM 7. Expand coastal bluff vegetation in areas designated Coastal Bluff in Figure A-6 by removing existing weedy vegetation and replanting with appropriate native species (again, see Table A-3). Protect areas undergoing planting until vegetation is established. As appropriate, place low fencing and signs informing people of ongoing revegetation efforts around the planted areas.

RMP MM 8. Post informational signs along blufftop trails advising users to stay on the path and informing people of the sensitive nature of the coastal bluff.

Table A-4. Performance Standards for Coastal Bluffs.

RMP Goal 2: Protect and enhance the coastal bluff areas through eliminating highly invasive weeds, promoting the abundance and diversity of native plant species through small-scale plantings, preventing unauthorized trail development, and increasing the extent of coastal bluff vegetation.				
FEATURE	**PERFORMANCE STANDARD**	**TIME PERIOD***	**FINDINGS**	**ACTION**
RMP PS 6. Priority 1 weeds except iceplant	Eliminate on coastal bluff	Year 3 and annually thereafter	No priority 1 weeds surviving to reproduction	Continue weed monitoring and control
			Priority 1 weeds reproducing on site	Increase frequency of monitoring and weed control; consider alternative control methods

Note: all footers need to be revised to match the format of the CLRDP chapters, with the numbering based on an A-1, A-2, A-3 system.

Table A-4. Performance Standards for Coastal Bluffs.

RMP Goal 2: Protect and enhance the coastal bluff areas through eliminating highly invasive weeds, promoting the abundance and diversity of native plant species through small-scale plantings, preventing unauthorized trail development, and increasing the extent of coastal bluff vegetation.

FEATURE	PERFORMANCE STANDARD	TIME PERIOD*	FINDINGS	ACTION
RMP PS 7. Iceplant removal	Eliminate on coastal bluff	Prior to first rainy season following initiation of construction for first development project in Lower Terrace development zone	No iceplant on coastal bluff	Continue monitoring and control
			Iceplant growing on coastal bluff	Increase frequency of monitoring and weed control; consider alternative control methods
RMP PS 8. Native plant revegetation	8 native plant species appropriate for habitat established in planted areas to comprise 40% cover within planted areas	2 years after planting**	4 or more native plant species established comprising ≥ 20% cover within planted areas, and evidence of natural recruitment present;	Continue monitoring
			Fewer than 4 native plant species or < 20% cover of native species in planted areas or no evidence of natural recruitment present	Perform supplemental planting using different species, propagule type, and/or soil preparation methods
		5 years after planting**	4 or more native plant species established comprising ≥ 40% cover within planted areas and evidence of natural recruitment present;	Continue monitoring

Note: all footers need to be revised to match the format of the CLRDP chapters, with the Sub-areas based on an A-1, A-2, A-3 system.

Table A-4. Performance Standards for Coastal Bluffs.

RMP Goal 2: Protect and enhance the coastal bluff areas through eliminating highly invasive weeds, promoting the abundance and diversity of native plant species through small-scale plantings, preventing unauthorized trail development, and increasing the extent of coastal bluff vegetation.

FEATURE	PERFORMANCE STANDARD	TIME PERIOD*	FINDINGS	ACTION
			Fewer than 4 native plant species or < 40% cover of native species in planted areas or no evidence of natural recruitment present	Perform supplemental planting using different species, propagule type, and/or soil preparation methods
		10 years after planting** and every 5 years thereafter	8 or more native plant species established comprising ≥ 40% cover within planted areas and evidence of natural recruitment present;	Continue monitoring
			Fewer than 8 native plant species or < 40% cover of native species in planted areas or no evidence of natural recruitment present	Perform supplemental planting using different species, propagule type, and/or soil preparation methods
RMP PS 9. Protection of coastal bluff vegetation	No disturbance to coastal bluff vegetation	Ongoing	Vegetation undisturbed	Continue monitoring
			Vegetation disturbed (plants broken, trampled, dislodged, removed)	Install additional signs or low fencing as appropriate

*Unless otherwise specified, year refers to the number of years following the date that the CLRDP is certified by the Coastal Commission. Standard must be met by year indicated.
**See Table 13 for planting schedule.

C. Wetlands

Note: all footers need to be revised to match the format of the CLRDP chapters, with the numbering based on an A-1, A-2, A-3 system.

Description

Eight wetland areas have been delineated on the terrace portion of the site (Figure A-4) (HBG 2004) based on the wetland definition contained in the Coastal Act and the Coastal Commission's Regulations. These wetlands support six vegetation types (seasonal ponds, freshwater marsh-coastal terrace, willow herb-Douglas' baccharis, moist meadow, willow riparian forest, and annual grassland)(Figure A-5) (EcoSystems West 2002). In addition, some wetland indicator species, such as Italian ryegrass and Douglas' baccharis) are patchily distributed in upland areas (HBG 2004). The wetland areas and the various vegetation types are described below.

Wetland Areas

The eight wetland areas represent the understanding of wetland distribution on the study site as of CLRDP certification (Figure A-4) (HBG 2004). W1 is the drainage ~~ditch~~ channel along the northwestern boundary of the property (0.11 acres). W2 is a flatter wetland swale in the northwestern portion of the property. It connects with W1 at its northern and southern ends. W3 is a large ponded area adjacent to the entrance to the site at the intersection of Delaware Avenue and Shaffer Road. W2 and W3 are 4.49 acres. W4 is the seasonal wetland swale in the eastern portion of the site (0.42 acres). W5 is a seasonal pond in the depressional area immediately south of the NOAA building (1.99 acres). W6 is an isolated wetland complex just north of the CDFG building (0.09 acres). W8 is an isolated wetland immediately south of Delaware Avenue Extension (0.01 acres). Other than wetland W7, all other wetlands qualify as ESHAs and together have a total acreage of 7.11 acres. Each of these is described in more detail below.

In addition to finding wetlands that qualified as ESHA on the Marine Science Campus, the Huffman-Broadway Group found one area that qualified as wetland but that did not qualify as ESHA. This is designated as Wetland W7 in Figure A-4. Wetland W7 was determined to have no plant or animal life or habitat that was either rare or especially valuable because of its role in the ecosystem. Wetland W7 is approximately 43 square feet and is located in the northeast corner of the site approximately 150 feet south of the northern property line.

Wetland W1. W1 and W2 both receive water from the culvert beneath the berm at the railroad tracks near the northwestern corner of the Campus. A small bermed area separates the wetland from the adjacent agricultural lands to the west. Water flows in a north to south direction along the northwestern property boundary, then veers to the southwest before discharging to the eastern arm of Younger Lagoon. W1 is a drainage ~~ditch~~ channel constructed to prevent inundation and allow agricultural cultivation in the northern portion of property. At present, it provides a major source of freshwater to Younger Lagoon. Sediment accumulation along portions of the channel have caused small ponds to form in some areas.

W1 is dominated by arroyo willow (*Salix lasiolepis)*, willow-herb (*Epilobium ciliatum* ssp. *watsonii)*, and the non-native curly dock (*Rumex crispus*) that are scattered along its length. A non-native weeping willow (*Salix babylonica*) and the weedy invasive pampas grass also grow in W1. Poison hemlock grows along its upper banks.

Wetland W1 and adjacent upland habitat provide an opportunity for wildlife to travel between Younger Lagoon and Antonelli Pond/Moore Creek (and along the railroad tracks to the west more generally), but its value is currently limited due to its minimal vegetative cover. A variety of bird species have been observed foraging along W1. A large number of Pacific tree frogs also occur there.

Wetland W2. W2 shares water sources with W1 and also receives sheetflow from upland areas to the

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east. Historical aerial photographs show that W2 previously included a man-made drainage ditch feature but active management of the ditch apparently stopped in the early 1980s. The channel gradually filled in with sediment so W2 no longer contains a clearly defined bed and banks, making it difficult to define its lateral boundaries. As delineated in 2001, it diverges from its origin near the culvert into two narrow bands, one extending south to just north of Delaware Avenue Extension and the other extending west and east along the northern Campus boundary. The Delaware Avenue Extension road grade promotes flooding, ponding, and surface soil saturation during the wet season and through early spring. This likely results in some recharge of the shallow water table as well as settling of suspended solids and associated pollutants.

Wetland W2 supports both Italian ryegrass and two locations of freshwater marsh-coastal terrace habitat, one in the southwest corner and the other in the northwest corner (see below). This habitat contains California tule (*Scirpus californicus)*, water smartweed (*Polygonum punctatum)*, willow-herb, and arroyo willow. The non-native grassland in W2 is not sharply distinct in species composition from the adjacent upland. The lowest portion of the area is overwhelmingly dominated by Italian ryegrass. Several large patches of the non-native herb green dock (*Rumex conglomeratus*) occur in the northern portion of the site, along with two patches of Douglas' baccharis at the margin of the wetland.

Wildlife habitat in W2 includes seasonal aquatic habitat in areas of ponded water. Three sub-adult California red-legged frogs were sighted in a small pond in the northwest corner of W2 in 1997 (Mori 1997) (see below). In addition a single CRLF was observed in the same pond in 2002 (EcoSystems West 2002) Pacific tree frogs also use the seasonal wetland habitat, as may aquatic invertebrates which then can serve as prey for amphibians, reptiles, birds, and small mammals. Overall habitat value of this wetland was low as of CLRDP certification (JGA and EH 1997; EcoSystems West in prep).

Wetland W3. Just north of Delaware Avenue Extension and east of the southern boundary of W2, is the area called Wetland W3. It is slightly lower in elevation than its surroundings so water ponds after significant rainfall. It receives overland flow from adjacent areas to the north and west; historical aerial photos indicate it was once part of a larger drainage that flowed from west to east and eventually discharged into Antonelli Pond. This drainage pattern was altered by agricultural activities and installation of the Campus access road.

Mapped as the non-native grassland vegetation type, W3 is not sharply distinct in species composition from the surrounding areas except that it contains algal mats, reflecting the seasonally flooded condition. The vegetation is otherwise overwhelmingly dominated by Italian ryegrass with scattered patches of curly dock. Its overall wildlife habitat value was low as of CLRDP certification.

Wetland W4. A seasonal drainage swale that originates in the central part of the Campus terrace area, approximately 300 feet northeast of the NOAA parking lot, is identified as Wetland W4. During rainfall events, water accumulates in the upper portion of the swale and then flows eastward to a corrugated metal pipe culvert near the eastern Campus boundary. Historical aerial photos indicate this was once part of a continuous drainage that flowed to Natural Bridges Lagoon until an underground culvert was installed to accommodate construction of De Anza Mobile Home Park. The upper portion of the remnant swale has been disturbed by agricultural plowing, leaving no clearly defined channel, but a clearly defined drainage way does exist in the lower portion of the swale. The wetland functions to improve water quality through settling of suspended solids and associated pollutants while ponded.

The upper portion of the swale is dominated by hydrophytic species, such as willow-herb, Douglas' baccharis, non-native annual rabbitsfoot grass (*Polypogon monspeliensis*) and curly dock. The central portion is not sharply distinct in species composition from the adjacent upland non-native grassland. The

Note: all footers need to be revised to match the format of the CLRDP chapters, with the sections based on an A-1, A-2, A-3 system.

lower portion of the drainage is dominated by Italian ryegrass with scattered curly dock and wild radish.

The area appeared to have very low biotic value as of CLRDP certification. It may provide suitable habitat for wetland-dependent wildlife species during the wet season, but it had a relatively short inundation period. It lacked benthic invertebrates and amphibians, and had only limited native vegetation.

Wetland W5. This wetland is a seasonal pond that forms in a modest topographic depression in the southern portion of the terrace immediately south of the NOAA building and is the wettest portion of the terrace site. Historical aerial photos show this wetland has been a persistent feature since at least the 1950s. The length and depth of ponding depends on rainfall, ranging from two to five months in duration and several inches to 16 inches in depth. The pond may aid in peak flow reduction and does provide water quality buffering through settling of suspended solids and associated pollutants. In the early 1900s, a small channel was excavated to drain water from the pond to the ocean bluffs, but after this ditch ceased to be maintained, it rapidly filled in with sediment, limiting drainage to the ocean from the ponded area. The channel exhibited wetland characteristics in 1993 but by 2002 the channel had disappeared except for a linear wetland corridor extending south approximately 200 feet. A storm drain outlet was constructed from the NOAA site near the pond's northern end to allow water to flow into the pond when the NOAA underground detention/percolation system reaches capacity. A pre-existing outlet near McAllister Way acts as a hydrologic control and limits lateral expansion of surface water within the pond.

W5 is characterized by the seasonal pond vegetation type (see below). Sedges, broad-leaved cattail (*Typha latifolia*), pale spikerush *(Eleocharis macrostachya)*, and pickleweed (*Salicornia virginica)* occur in the wetter areas, with Douglas' baccharis and Italian ryegrass dominating the transitional areas that merge with the surrounding non-native grassland habitat.

The pond has good wildlife value in spite of the abundance of non-native plant species. The pond supports many aquatic and benthic invertebrate species, which provide a food base for amphibians, reptiles, and birds. Pacific tree frogs have been observed at the pond. The open water provides an area for migratory waterfowl and shorebirds to rest. Small mammals forage on seeds and grains, and are prey for foraging raptors such as the northern harriers. The pond is used for birdwatching.

Wetland W6. W6 is a small isolated wetland complex, occupying a low-lying area in the northwestern portion of the site north of the CDFG building along the western edge of McAllister Way. This area may have been used to retain irrigation water when the area was farmed. A partial berm that prevents the area from draining into the adjacent stream habitat of YLR is still visible. Although the area mapped as Wetland W6 includes only moist meadow habitat, other wetland vegetation types (freshwater marsh-coastal terrace, central coast arroyo willow riparian forest) occur nearby, separated by non-native grassland. These areas are treated together for purposes of this RMP. The marsh can contain open water through mid-May or later, and the moist meadow retains moisture much later in the season than the non-native grassland habitat.

This wetland is valuable wildlife habitat. It and the adjacent upland habitat facilitate wildlife movement between YLR and Antonelli Pond/Moore Creek (as well as upcoast along the railroad track corridor), and the arroyo willow offers screening and escape cover.

Wetland W7. W7 is a small isolated wetland located in the northeast corner of the Campus about 150 feet south of the northern Campus property line at the railroad right-of-way. Wetland W7 was mapped at 43 square feet at the time of CLRDP certification.

Wetland W8. This seasonal wetland just south of Delaware Avenue Extension occupies a low-lying

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area immediately adjacent to roadbed. The vegetation consists of non-native grassland, and the area is subject to (and probably formed by) periodic disturbance by passing vehicles whose tires leave the paved roadbed. The depressional area supports wetland hydrologic conditions during the rainy season, particularly within the tire ruts, but is hydrologically isolated from other wetlands on the site due to the presence of Delaware Avenue Extension. This wetland is not subject to Section 404 of the Clean Water Act because of its hydrologic isolation, but is subject to California Coastal Act protection policies because hydrology and soil criteria are met.

Wetland Vegetation Types

EcoSystems West (2002) described five wetland vegetation types on the terrace site based on vegetation characteristics (Figure A-5) (EcoSystems West 2002). These include the seasonal pond, freshwater marsh-coastal terrace, herb community dominated by willow-herb and Douglas' baccharis, moist meadow, and central coast arroyo willow riparian forest. EcoSystems West (2002) characterized Italian ryegrass (*Lolium multiflorum)* as an upland vegetation type. However, at the time that the U.S. Fish and Wildlife Service (USFWS) issued its 1988 list of species that grow in wetlands, Italian ryegrass was considered synonymous with perennial ryegrass (*L. perenne*), a hydrophyte with a wetland designation of "FAC" (equally likely to occur in uplands or wetlands). Although the 1996 USFWS list does not include Italian ryegrass and the latter is now considered by many to be a separate species, in California it occurs in the same habitat conditions as its congener. At Terrace Point, Italian ryegrass grows in areas that are continuously inundated for months and in areas with upland hydrology and should be considered a FAC species (Huffman-Broadway Group 2004).

The first wetland vegetation type is the seasonal pond type, located within the grasslands south of the NOAA building in the southwestern portion of the terrace (Wetland W5). Patches of prairie bulrush (*Scirpus maritimus)* dominate the central pond, along with smaller dense patches of pale spike-rush. Scattered on the pond bed are patches of the coastal salt marsh species pickleweed and non-native brass buttons (*Cotula coronopifolia*), swamp grass (*Crypsis schoenoides*), and biennial sagewort *(Artemisia biennis*). An annual native herb, water starwort (*Callitriche marginata*), is abundant along the pond margins, where the vegetation is not otherwise sharply distinct from that of the adjacent non-native grassland. Douglas' baccharis and Italian ryegrass also grow in the transitional areas.

The second vegetation type, freshwater marsh-coastal terrace habitat, is found in three areas. The first is near the western boundary of the site, just north of the sharp curve where Delaware Avenue Extension curves to the south near the southwest corner of wetland W2. The marsh is in a small topographic depression, dominated by a dense patch of California tule in the center. Water smartweed and willow-herb occur around the edges, along with a small arroyo willow.

The second area of freshwater marsh-coastal terrace is just south of the railroad tracks in the northwestern corner of the property, at the northwest end of Wetland W2 at its intersection with W1, and may extend onto the railroad right-of-way. Dominated by a large arroyo willow in the center, the marsh also supports a dense colony of broad-leaved cattail, floating marsh-pennywort (*Hydrocotyle ranunculoides*), water smartweed, willow-herb, and prairie bulrush. Saltgrass (*Distichlis spicata*) occurs in dense patches along the marsh margins.

The third location of freshwater marsh-coastal terrace is in the small wetland complex in the northwestern area of the terrace north of the CDFG building. Prairie bulrush and willow-herb grow along the margins of the marsh, which can have open water as late as May. The marsh drains into the eastern arm of Younger Lagoon. Willow-herb, prairie bulrush, and tall cyperus (*Cyperus eragrostis*) are the dominant species in the drainage way.

The third wetland vegetation type is the herb community dominated by willow-herb and Douglas'

Note: all footers need to be revised to match the format of the CLRDP chapters, with the Section CLRDP based on an A-1, A-2, A-3 system.

baccharis. Although these species occur elsewhere on the property, only a small area in the east-portion of the site (Wetland W4) supports this specialized vegetation type. Non-native cut-leaved geranium and bristly ox-tongue are also abundant.

The fourth wetland vegetation type is the moist meadow habitat. It occurs at the northern end of the wetland complex known as W6, to the north of the freshwater marsh-coastal terrace from which it is separated by an area of non-native grassland. The moist meadow intergrades with the non-grassland habitat, but is floristically distinct and its soil retains moisture until relatively late in the season. It is dominated by the non-native velvet grass (*Holcus lanatus*), a perennial that indicates at least seasonally moist conditions. The native Pacific silverweed (*Potentilla anserina* ssp. *pacifica*) is an abundant associate. Other species include willow-herb and the non-native cut-leaved geranium, wild radish (*Raphanus sativa*), prickly sow-thistle (*Sonchus asper*) and bristly ox-tongue.

The fifth wetland habitat type is central coast arroyo willow riparian forest. This habitat is found in only one location on the terrace, although it is abundant in YLR. Along with the freshwater marsh-coastal terrace and moist meadow habitats, the arroyo willow riparian forest is found near Wetland W6. It occurs in one small patch at the southeast end of the freshwater marsh-coastal terrace. It is dominated by arroyo willow with no other arborescent species present and little understory.

Grassland dominated by Italian ryegrass constitutes a sixth wetland habitat type. This habitat is a significant part of the vegetation in wetlands W2, W3, W4, W5, and W8.

Protection and Enhancement Management Measures for Wetlands

Management of the wetlands applies to the seven areas identified as W1 through W6 and W8. Wetland W7 is addressed in the wildlife corridor management measures below. Management measures focus on weed control, shifting species composition to native species, and enhancement of wetlands W1 and W2 (Figure A-6). Performance standards for these management measures are shown in Table A-5. Table A-2 lists the non-native weeds (classified there as high, medium, and low priority for removal) identified for removal, and Table A-3 identifies appropriate species for the planting, as described in these management measures.

[[Note: Table A-5 needs to be moved to follow the management measure text – not precede it.]]

Table A-5. Performance Standards for Wetlands.

RMP Goal 3: Protect and enhance wetlands by improving surface water flow, controlling weeds, promoting the abundance and diversity of native plant species through small-scale plantings, creating buffers, implementing the CLRDP Drainage Concept Plan, and controlling access by humans and non-native animals.

FEATURE	PERFORMANCE STANDARD	TIME PERIOD*	FINDINGS	ACTION
RMP PS 10. Wetland 2 - flow diversion from Wetland 1	Wetland functioning as expected per design	1, 2, and 3 years after diversion completed	Wetland functioning as expected	Continue monitoring ~~through 3 years after implementation~~

Note: all footers need to be revised to match the format of the CLRDP chapters, with the numbering based on an A-1, A-2, A-3 system.

Table A-5. Performance Standards for Wetlands.				
RMP Goal 3: Protect and enhance wetlands by improving surface water flow, controlling weeds, promoting the abundance and diversity of native plant species through small-scale plantings, creating buffers, implementing the CLRDP Drainage Concept Plan, and controlling access by humans and non-native animals.				
FEATURE	**PERFORMANCE STANDARD**	**TIME PERIOD***	**FINDINGS**	**ACTION**
			Wetland not functioning as expected	Develop and implement plans to correct functioning; continue monitoring ~~through 3 years after implementation~~
RMP PS 11. Combined Wetland W1/W2 – creation of willow riparian corridor along new channel and restoration plantings west and east of the combined W1/W2 hydrologic corridor	3 native plant species appropriate for habitat established in planted areas to comprise 50% cover	3 years after planting**	3 or more native plant species established comprising ≥ 20% cover within planted areas and evidence of natural recruitment present;	Continue monitoring
			Fewer than 3 native plant species or < 20% cover of native species established within planted areas or no evidence of natural recruitment present	Perform supplemental planting using different species, propagule type, and/or soil preparation methods
		10 years after planting** and every 5 years thereafter	3 or more native plant species established comprising ≥ 50% cover within planted areas and evidence of natural recruitment present;	Continue monitoring

Note: all footers need to be revised to match the format of the CLRDP chapters, with the numbering based on an A-1, A-2, A-3 system.

Table A-5. Performance Standards for Wetlands.				
RMP Goal 3: Protect and enhance wetlands by improving surface water flow, controlling weeds, promoting the abundance and diversity of native plant species through small-scale plantings, creating buffers, implementing the CLRDP Drainage Concept Plan, and controlling access by humans and non-native animals.				
FEATURE	**PERFORMANCE STANDARD**	**TIME PERIOD***	**FINDINGS**	**ACTION**
			Fewer than 3 native plant species or < 50% cover of native species established within planted areas or no evidence of natural recruitment present	Perform supplemental planting using different species, propagule type, and/or soil preparation methods
RMP PS 12. Priority 1 weeds	Eliminate in wetlands	Year 3 and annually thereafter	No priority 1 weeds surviving to reproduction	Continue weed monitoring and removal as necessary
			Priority 1 weeds reproducing on site	Increase frequency of monitoring and weed removal efforts; consider alternative control methods
RMP PS 13. Priority 2 and 3 weeds	Reduce weedy annual grassland seedset	Year 1 and annually thereafter	Annual grassland cut before developing seed	Continue mowing program
			Annual grassland allowed to develop seed	Change mowing schedule to prevent seedset
RMP PS 14. Native plant revegetation	4 native plant species appropriate for habitat established in planted areas to comprise 40% cover within planted areas	2 years after planting**	4 or more native plant species established comprising ≥ 20% cover within planted areas and evidence of natural recruitment present;	Continue monitoring

Note: all footers need to be revised to match the format of the CLRDP chapters, with the numbering based on an A-1, A-2, A-3 system.

Table A-5. Performance Standards for Wetlands.				
RMP Goal 3: Protect and enhance wetlands by improving surface water flow, controlling weeds, promoting the abundance and diversity of native plant species through small-scale plantings, creating buffers, implementing the CLRDP Drainage Concept Plan, and controlling access by humans and non-native animals.				
FEATURE	**PERFORMANCE STANDARD**	**TIME PERIOD***	**FINDINGS**	**ACTION**
			Fewer than 4 native plant species or < 20% cover of native species established in planted areas or no evidence of natural recruitment present	Perform supplemental planting using different species, propagule type, and/or soil preparation methods
		5 years after planting** and every 5 years thereafter	4 or more native plant species established comprising ≥ 40% cover within planted areas and evidence of natural recruitment present;	Continue monitoring

Note: all footers need to be revised to match the format of the CLRDP chapters, with the exception of the CLRDP based on an A-1, A-2, A-3 system.

Table A-5. Performance Standards for Wetlands.				
RMP Goal 3: Protect and enhance wetlands by improving surface water flow, controlling weeds, promoting the abundance and diversity of native plant species through small-scale plantings, creating buffers, implementing the CLRDP Drainage Concept Plan, and controlling access by humans and non-native animals.				
FEATURE	**PERFORMANCE STANDARD**	**TIME PERIOD***	**FINDINGS**	**ACTION**
			Fewer than 4 native plant species or < 40% cover of native species established in planted areas or no evidence of natural recruitment present	Perform supplemental planting using different species, propagule type, and/or soil preparation methods
RMP PS 15. Protection of revegetation in progress	No disturbance to revegetation plantings	Ongoing until revegetation is successful	Plantings undisturbed	Continue monitoring until revegetation is successful
			Plantings disturbed (plants broken, trampled, dislodged, removed)	Determine cause; develop appropriate solution
RMP PS 16. Protection of wetlands	No unauthorized human disturbance to wetlands	Ongoing	Wetlands undisturbed	Continue monitoring
			Vegetation disturbed (plants broken, dislodged, trampled, removed); soils disturbed or compacted; other signs of trespass present	Install additional signs or low fencing as appropriate
RMP PS 17. Minimize	Minimal changes to surface topography	Ongoing	Wetlands undisturbed	Continue monitoring

Note: all footers need to be revised to match the format of the CLRDP chapters, with the numbering based on an A-1, A-2, A-3 system.

Table A-5. Performance Standards for Wetlands.				
RMP Goal 3: Protect and enhance wetlands by improving surface water flow, controlling weeds, promoting the abundance and diversity of native plant species through small-scale plantings, creating buffers, implementing the CLRDP Drainage Concept Plan, and controlling access by humans and non-native animals.				
FEATURE	**PERFORMANCE STANDARD**	**TIME PERIOD***	**FINDINGS**	**ACTION**
			Substantial changes to surface topography and/or drainage patterns evident	Determine cause; correct as necessary
*Unless otherwise specified, year refers to the number of years following the date that the CLRDP is certified by the Coastal Commission. Standard must be met by year indicated. **See Table 13 for planting schedule.				

RMP MM 9. Restore, consolidate, expand, and enhance wetlands on the northern part of the site (i.e., north of the Campus access road) to restore historic functional values lost during decades of agricultural use. The restoration program will include integrating the hydrology of Wetlands W1 and W2 to create a consolidated north-south area for wildlife movement to YLR. Hydrological surveys will be conducted by a qualified hydrologist to establish that critical elevations are correct for expected wetland functioning. The area will be graded to provide a natural channel profile and gradient between the culvert at the Union Pacific Railroad tracks and the culvert outlet to Younger Lagoon on the west property line . The area west of the combined W1/W2 hydrologic corridor shall be restored as functioning wetland upland/transitional habitat, as shall buffer areas to the east. Maintain the CRLF potential habitat at the northern end of W-2.

RMP MM 10. Establish a new vegetation framework for wetlands W1, W2, and W6 by planting and/or seeding appropriate native grass and herb wetland species (see Table A-3) to enhance habitat connectivity between these wetlands and YLR. Plant arroyo willow cuttings along the new riparian corridor and along the property line to enhance the wetland and encourage wildlife movement. Plant appropriate wet meadow species in the remainder of the wetland.

RMP MM 11. Remove high priority weeds (see Table A-2) in all wetlands, using appropriate methods. Weeds should be removed prior to seedset.

RMP MM 12. Control low and medium priority weedy invasive annual grasses and herbs (again, see Table A-2) by mowing at least three times through spring and summer. Mowing is intended to remove the seed of non-native grasses and reduce the seedbank over time. Mowing within wetland areas shall only occur in wetland areas that are dominated by non-natives and only as part of an approved restoration plan. Mowing should be timed to prevent annual species seedset. Mowing should be performed with a rotary or sickle bar mower so that it does not damage native herbaceous groundcovers; flail mowers should not be used. The timing of cutting is critical and should occur when the majority of weeds are in the early to mid-flowering stage; subsequent cuttings will be necessary for weeds that re-flower. Initial mowing for weed control should be performed as early as possible in March prior to bird nesting and territory establishment. Allow patches of native species to remain.

RMP MM 13. Revegetate weeded or bare areas of wetlands larger than 200 square feet with appropriate

native grass, herb, and/or shrub species (again, see Table A-3).

RMP MM 14. Protect wetlands from physical human disturbance by appropriately siting and designing trails and other development, and by limiting unauthorized access into the wetland habitat.

RMP MM 15. Minimize changes to existing drainage patterns in open space areas, except for the changes recommended for W1 and W2 above.

D. Wildlife Corridors and Wildlife Corridor Buffers

Description

The northern and northwestern margins of the terrace and the area north of Delaware Avenue Extension provide an opportunity to accommodate enhanced movement of wildlife between Moore Creek, Antonelli Pond, and Younger Lagoon, as well along the railroad corridor to the west more generally (Figure A-6). Under the CLRDP, wildlife corridors 20 feet wide will be designated along the northern boundary of the Campus (at the railroad tracks) and just south of the Upper Terrace development zone. These designated corridors will be accompanied by buffers ranging from 125 feet to 200 feet for the southern part of the northernmost corridor (and including Wetland W7 within it), and 50 feet on either side of the more southern corridor. The corridors together with their buffers will be enhanced with vegetation to provide better habitat cover and foraging area. These corridors and their accompanying buffer areas will connect to Wetlands W1, W2, W6, and W7 (for the northern corridor) and W2, W3, and W6 (for the southern corridor), all of which will be restored, enhanced, and maintained in open space. The approximately 50 feet of railroad right of way between the Campus boundary and the railroad tracks will also contribute to viability of the northernmost corridor.

As it now exists, the ~~area where the~~ more northern wildlife corridor and buffer ~~would be created~~ crosses lower quality seasonal wetland habitat as well as non-native grassland, coyote brush scrub-grassland, and ruderal habitats. The wetland habitat is provided mostly by the channel forming Wetland W1 and by the northern and western portions of Wetland W2. The wetland habitat may serve as a movement corridor for wetland-dependent species (possibly including California red-legged frogs) traveling across the terrace. The drainage contains wetland plants along its length and often forms several shallow pools that remain intermittently in the channel after other water has dried down. Dry areas need to be maintained for terrestrial wildlife. The corridor/buffer contains many weedy species and supports minimal shrub vegetation to provide protective escape cover.

The more southern corridor/buffer extends through wetland W3 to Shaffer Road (see Figures A-3 and A-6). In both cases, the corridor/buffer area connects to similarly oriented west-east corridor areas, including wet areas, located off Campus between Shaffer Road and Antonelli Pond.

Protection and Enhancement Management Measures for Wildlife Corridors and their Buffers

Management measures for the ~~proposed~~ wildlife corridor and wildlife corridor buffer areas focus on siting and designing development so that it does not interfere with wildlife passage, weed control and supplemental planting with appropriate species to provide additional protective cover and forage for wildlife, and enhancing safe passage for wildlife across ~~the~~ Shaffer Road ~~right of way~~. Performance standards for these measures are presented in Table A-6. Table A-2 lists the non-native weeds (classified there as high, medium, and low priority for removal) identified for removal, and Table A-3

Note: all footers need to be revised to match the format of the CLRDP chapters, with the numbering based on an A-1, A-2, A-3 system.

identifies appropriate species for the planting, as described in these management measures.

RMP MM 16. Remove high priority weeds (see Table A-2) along the designated wildlife corridor and wildlife corridor buffer areas, using appropriate methods. Weeds should be removed prior to seedset.

RMP MM 17. Plant appropriate native shrub and tree species along the wildlife corridor and wildlife corridor buffer areas (see Table A-3) encompassing both wetland and upland habitats as appropriate to area. Create arroyo willow riparian thickets along the drainage by planting willow cuttings (see also recommendation in previous section for Wetland W2). In conjunction with buffer plantings, plant native upland trees and shrubs randomly spaced to approximate natural conditions along the remaining alignment. Some grassland will be retained to facilitate animal movement. Provide stratification of cover and forage to create habitat for a range of aerial and ground-dwelling wildlife species by planting appropriate native understory vegetation among the trees and shrubs.

RMP MM 18. Minimize changes to existing drainage patterns in open space areas.

RMP MM 19. Protect wildlife corridor and wildlife corridor buffer areas by appropriately siting and designing development adjacent to them, and trails that may be adjacent and./or may pass through such areas. Such development shall incorporate appropriate measures to ensure that noise, lights, and activities are effectively screened from wildlife receptors using the corridor/buffer areas, and, in the case of trails/other development that crosses such areas, shall incorporate appropriate elements to ensure through habitat connectivity (e.g., raised boardwalks, box culvert crossings, bridges, etc.).

RMP MM 20. If Shaffer Road is improved/modified and/or a trail developed along Shaffer Road, create a safe crossing for wildlife traveling between the east and west sides of the road ~~right-of-way~~ where the corridor/buffer areas intersect it.

[[Note Need to move the following section to follow the wetland section to make most sense. Adjust numbering of Table, MMs, etc accordingly.]]

E. Wetland Buffers

Description

With implementation of the planned enhancement measures, 100 feet is the appropriate buffer for most wetland areas (Figure A-6). The purpose of the buffer areas is to protect the wetlands from adverse impacts due to noise, human intrusion, activities, lighting, predation, invasion by non-native plant species, sedimentation, and urban runoff. Buffers do not constitute a specific habitat type in themselves and at the time of CLRDP certification they included mostly non-native grassland, coyote brush scrub-grassland, and ruderal vegetation types. Their principal function will be to protect the sensitive areas from disturbance.

The W1, W2, W3, W6, and W8 wetlands share a buffer area due to their close proximity. At the time

Note: all footers need to be revised to match the format of the CLRDP chapters, with the numbering based on an A-1, A-2, A-3 system.